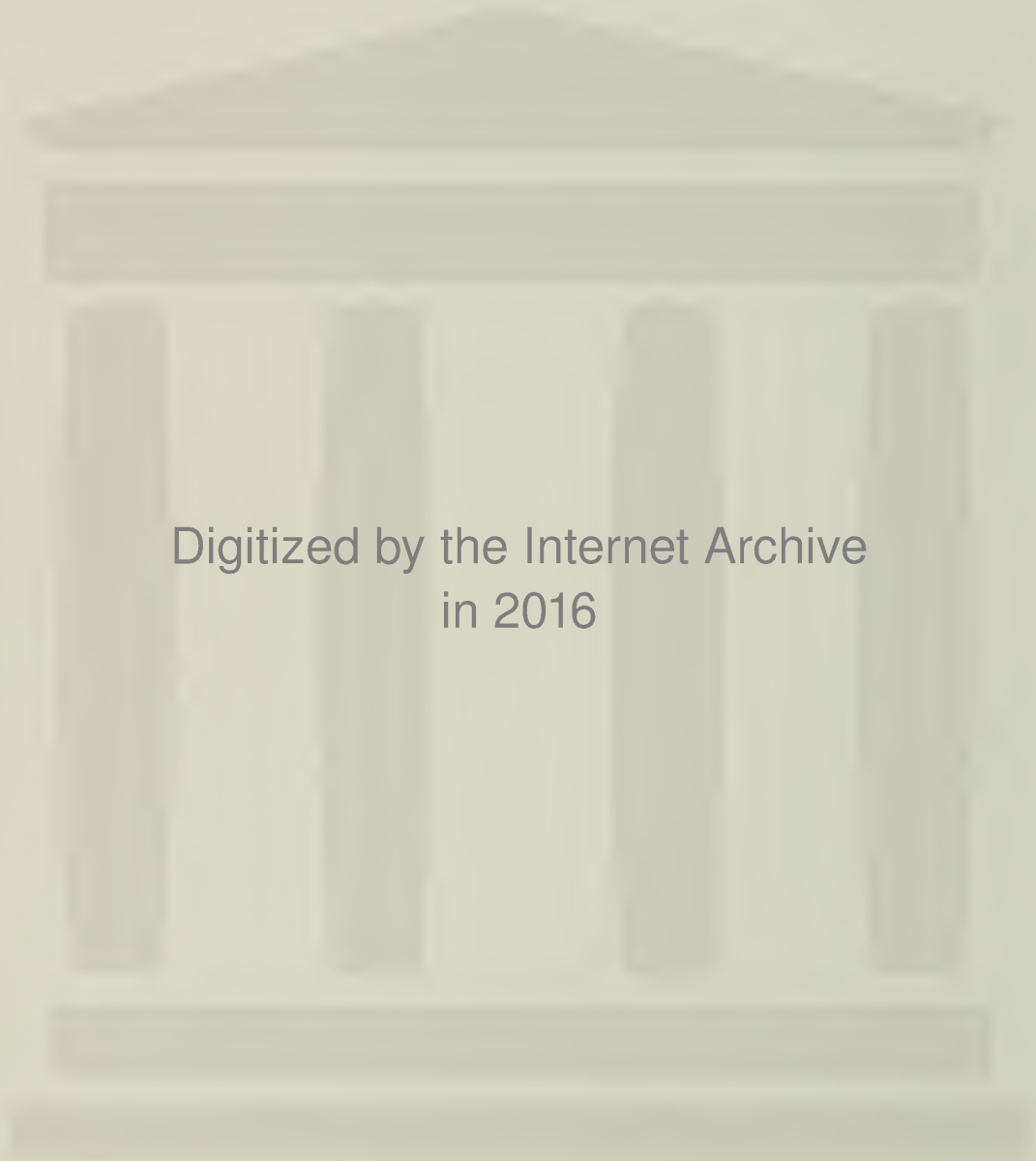
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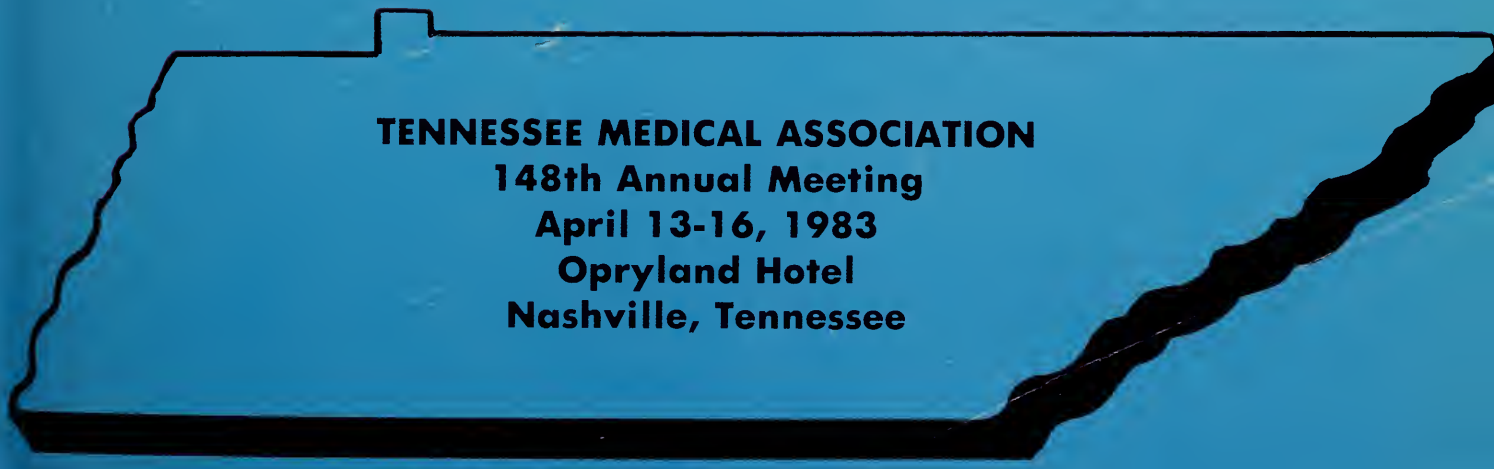
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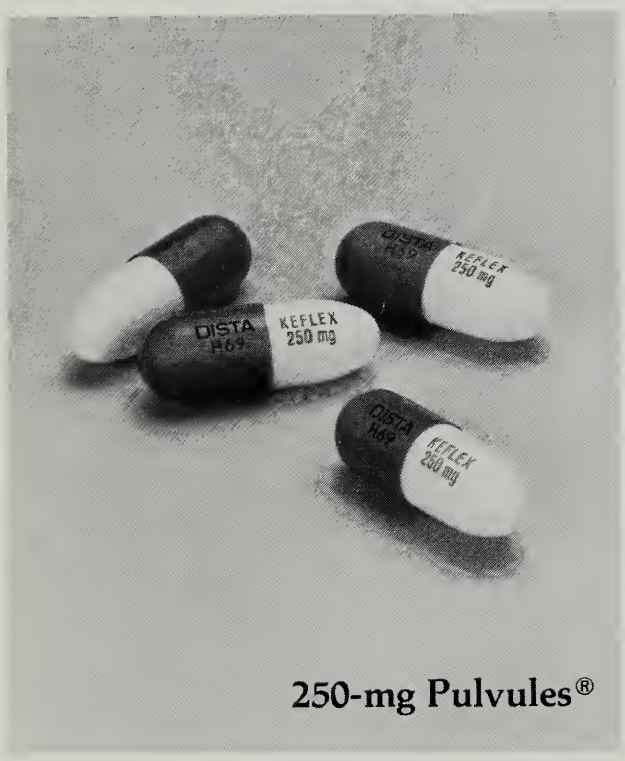
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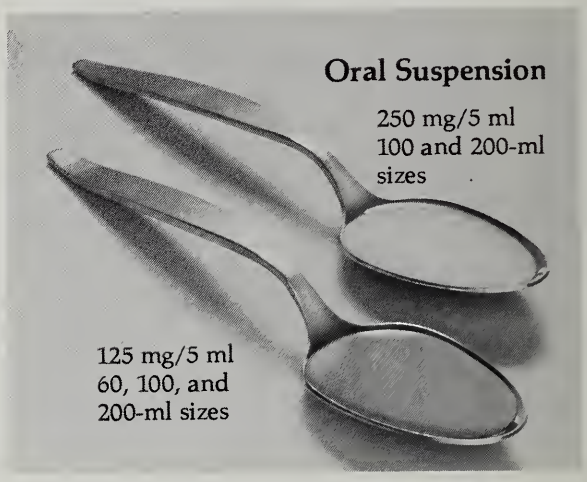


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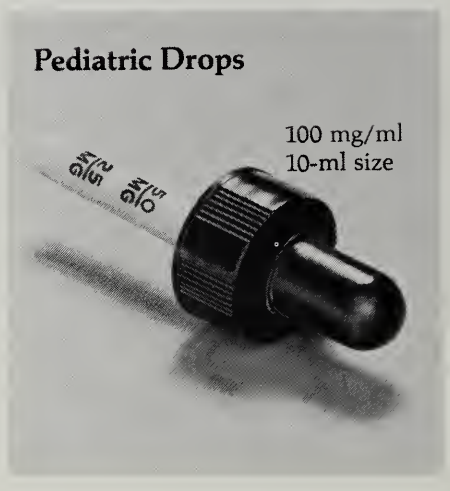


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WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight-reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high-dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

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USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

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Artist's interpretation:
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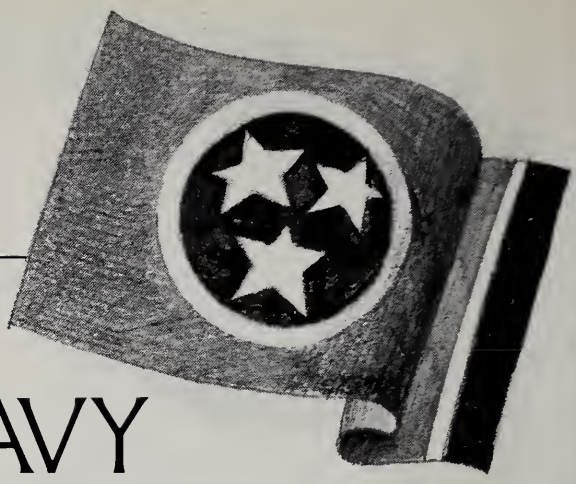
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the history of Tennessee medicine



THE STORMY PETREL OF THE NAVY

Dr. Ninian Pinkney

An adopted son of Tennessee, Dr. Ninian Pinkney was as colorful as he was contributive to the development of the United States Medical Corps service. He has been described as a conspicuous figure, eccentric and cantankerous, a very lovable character and a stormy petrel, the last in reference to his frankness with his superiors.[1]

Born in Annapolis in 1811 (in a home that later became the site of the first Naval Academy Chapel) and commissioned Assistant Surgeon in the Navy in 1834, Dr. Pinkney served aboard the frigate *Brandywine* in the Mediterranean in 1839, on the station ship in Callao, Peru, in 1841 and on board the frigate *Saranac* in Port-au-Prince, Haiti, in 1850. During these years, he began strenuous and unceasing agitation for appropriate rank for surgeons and other medical personnel serving with the Army and the Navy. He enlisted the support of the American Medical Association, of his brother, Bishop Pinkney of Maryland, and of successive Secretaries of the Navy with whom he was friendly.[1]

Aboard the *Red Rover*

His efforts increased when, at the beginning of the Civil War, he was assigned as fleet surgeon of the Mississippi River Squadron and lived aboard the captured side-wheeler *Red Rover*, which he fitted out as the first Naval Hospital Ship, complete with fully equipped operating room.

In 1863, Dr. Pinkney's *Red Rover* was docked at Memphis, where he established a base hospital and the medical supply depot for 80 vessels of the Mississippi fleet. In Memphis, too, Pinkney enlisted the first female nurses in the Navy.

Before his retirement, Dr. Pinkney lived to see a considerable advance on his goal of status for medical officers. By 1871, surgeons were being given staff grades in the Navy. Pinkney also saw the Naval Medical Corps grow in size to about 150 members, nearly three times the number under his original Memphis command.[1]

It is a proud irony that Tennessee, a state unbounded by an ocean, can nevertheless claim credit for the invaluable services of medical men and women to the history of the United States Naval Services.

Reference: 1. Packard FR: *History of Medicine in the United States*, vol. II. New York, Hafner Publishing Company, 1963, pp. 704-711.



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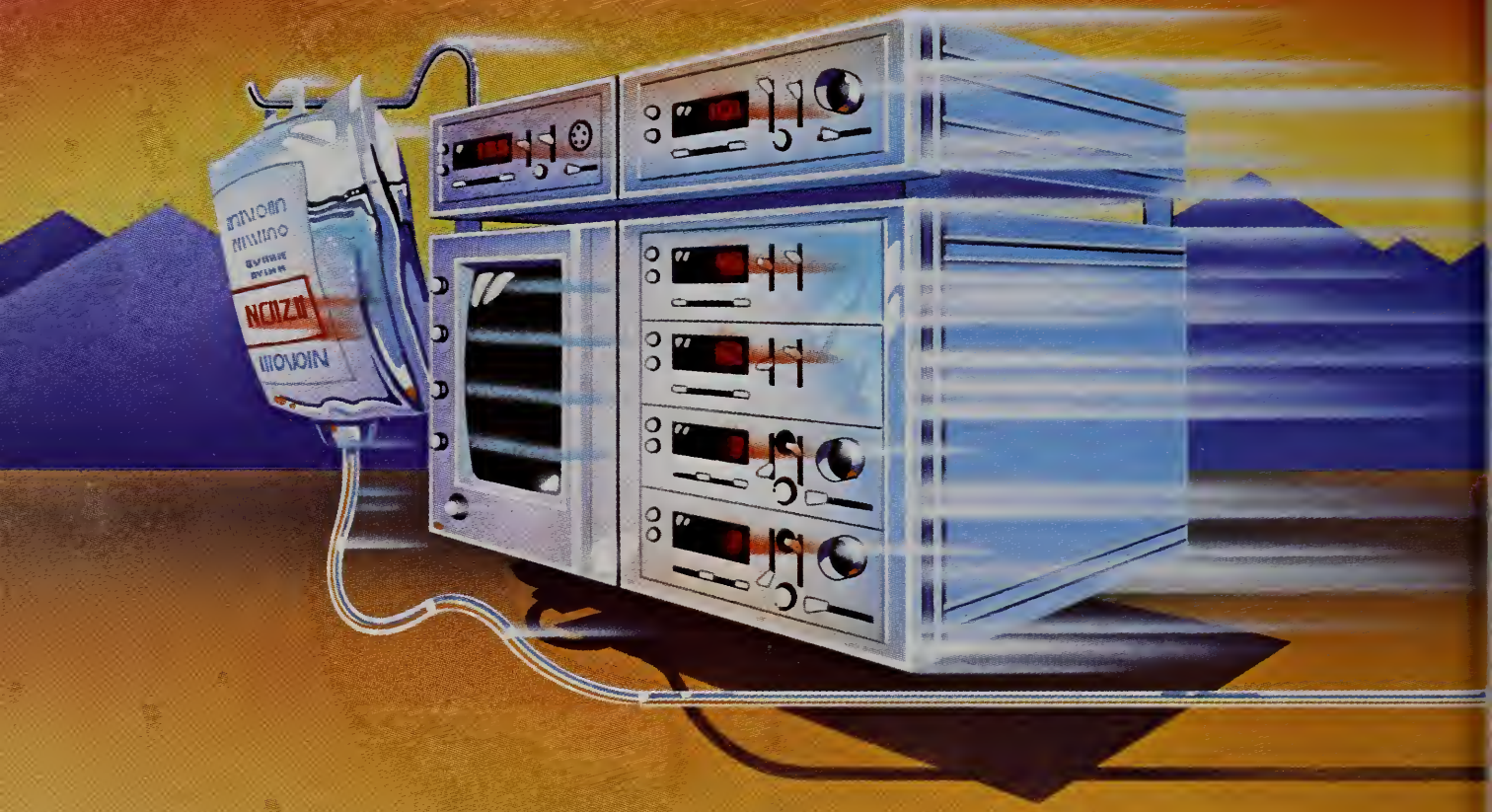
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Do not use this drug in patients with narrow-angle glaucoma, obstructive or paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis. Do not use in nursing mothers.

Use in treating lower respiratory tract symptoms, including asthma, is contraindicated.

WARNINGS: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients. Patients should also be warned about the possible additive effects of alcohol and other CNS depressants.

Usage in pregnancy: Safe use in pregnancy has not been established. Use only when the potential benefits have been weighed against the possible hazards to the mother and child. Note that an inhibitory effect on lactation may occur.

PRECAUTIONS: Use with caution in patients with a history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension, hiatal hernia with reflux esophagitis, intestinal atony of the elderly or debilitated intestinal obstruction, myasthenia gravis, renal function impairment, and ulcerative colitis (severe).

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Practice in Nashville—1905 and Succeeding Years

From the Autobiography of Clinton E. Brush, M.D.

R. H. KAMPMEIER, M.D.

Clinton E. Brush, M.D., died on Nov. 29, 1981 at the age of 102 years. Sometime after my arrival in Nashville some 45 years ago I met Dr. Brush at the weekly meetings of the Nashville Academy of Medicine held in its meeting hall in the Doctors Building. Then, as programming led to less frequent meetings and a change of format, he attended meetings infrequently and our paths did not cross for many years.

When the minutes book of the Asklepion Club came to my attention, I renewed our acquaintance as I interviewed him about his role in this club.[1] He was then 101 years of age, mentally alert and, except for deafness, apparently in satisfactory physical health. My visits led to his lending me a copy of an autobiography he had recently completed, consisting of more than 100 double-spaced pages which he had "pecked out" on a portable typewriter. Earlier that year a taped interview with him as the oldest living graduate of the Johns Hopkins School of Medicine had been recorded and published in the *Hopkins Medical News* of March, 1981.[2]

Intrigued by Dr. Brush's account of early years of practice in Nashville, I suggested that he should submit to the *Journal of the Tennessee Medical Association* the story of his early years in Nashville. The upshot of the conversation was that I would edit portions of the autobiography, which he then would submit to the editor of the *Journal.* Death intervened before I made progress in the editing. Rather than editing the manuscript to which Dr. Brush would append his name, however, I now feel more comfortable excerpting a story than preparing an edited copy of his words that would lack his approval. Still convinced that his early experiences in Nashville have historical interest, I have elected to prepare a biographical sketch of Dr. Brush's life and contribution in that era as culled from his autobiography.

Although the aspects of setting up private practice in Nashville in 1905 are quite prosaic to me who observed a similar process at close hand only a few years later by a member of my own family, I believe it should prove to be of interest to some readers. It would appear that Dr. Brush's impact on medical education in Nashville was

considerable because he was the first to receive a clinical faculty appointment here directly from the milieu that Flexner used as a yardstick against which to measure the country's medical schools.

Clinton Brush was born in South Orange, N.J., on March 22, 1879, the youngest of five children. From the description of his childhood it is apparent the family was in comfortable circumstances and the children had the amenities of life, including travel, education in private preparatory schools, and a college education. Nevertheless, the children were brought up with assigned responsibility for certain chores about the home even though there were household servants.

Having decided upon a medical career, Brush, upon completion of his high school education in the spring of 1895, applied to New York University. The results of his entrance examinations that fall were so excellent that the university awarded him a four-year scholarship. Although he described his four years at NYU as uneventful, he and several classmates were recruited by a member of the biology faculty to assist in netting and bringing tropical fish to the New York City aquarium from Bermuda by ship, which he continued at intervals from 1897 to 1902 and which provided interesting reminiscences.

He entered Johns Hopkins School of Medicine in 1899 in a class of 47 men and five women. During the first year, as a student under Dr. Howell, professor of physiology, he and a classmate carried out studies of blood pressure levels during sleep, a subject unexplored heretofore; the results were published by Dr. Howell. In addition to Howell, the famed faculty to which Brush alluded were Drs. Mall, anatomist, William Osler in medicine, Halsted in surgery, Kelly in gynecology, and Williams in obstetrics.

Brush's recollections of the Hopkins days appeared, as noted above, in the *Hopkins Medical News,* and included prerequisites for admission to Hopkins, the physical plant of the school and hospital, and a review of the curriculum of those days, his clinical clerkships, and obstetrical experiences in home deliveries. He apparently fell under the spell of William Osler as, it appears, did almost all others, both professionals and laity, many of whom have attested to this. From numerous items in his recollections of Osler,[2] I quote two:

"Dr. Osler was a firm believer in the value of knowledge gained through observation over that gained by reading books. When he first met our class he said, 'I do not want any of you to open a book and read anything about typhoid fever. You will see practically every complication of typhoid either in the clinic or at bedside and I want you to learn about it by observation.'

"One of the brightest of the many bright periods of my years at Johns Hopkins came during my senior year when Dr. Osler had the clinical clerks in medicine come to his beautiful home at 1 West Franklin St. Once a month an evening was spent discussing one of the old masters of medicine. We were ushered into his dining room and seated around a big mahogany banquet table at the end of which was Dr. Osler with six to eight books on the table in front of him. These books were mostly first editions of the man whose contributions to medicine he wished to discuss. I was amazed at Dr. Osler's knowledge of the contents of the books. Not once did he have to refer to any of them unless he wished to read some paragraph verbatim. When he finished his subject he sat and talked with us about local conditions until 9 p.m. when he rose from his chair and said, 'Gentlemen I have enjoyed this evening and will see you again next month. Good night.' With that, he turned and went to his room leaving us to be ushered to the front door by his butler."

A more formal and extended account of Osler's influence upon his students appears in the autobiography of one of his classmates who also appeared on the medical stage in Nashville two decades after Clinton Brush—G. Canby Robinson, dean of the faculty of the "new" Vanderbilt School of Medicine.[3] I quote a few of his words to emphasize the educational background of Dr. Brush, both as a student and intern. Robinson wrote of a "group of young men who exemplified his (Osler's) great influence in making missionaries of scientific medicine," naming Drs. William Thayer, Henry Thomas, Thomas Futcher, Thomas Brown, Thomas McCrae, Rufus Cole, Charles Emerson and Campbell Howard (who was to be my professor of medicine).

Dr. Brush graduated in 1903. He stood fifth in his class and along with the four others had a grade of 95 and therefore needed to be rated on decimal points. It appears that 12 internships were available in the hospital—four each in medicine and surgery and two each in gynecology and obstetrics. Because of Osler's attraction, the upper four in the class usually chose the medical intern-

ships, but in his class one of the top students chose surgery, and thereby Brush attained a medical internship. In his intern year he met the nurse who was to become his wife. At the end of his internship he was offered the post of assistant on the medical faculty, to assist the late Dr. C. P. Emerson in teaching clinical microscopy. (Emerson became professor of medicine at Indiana, and was the author of a textbook of medicine and one entitled *Clinical Diagnosis,* which served as the textbook in clinical microscopy ["laboratory methods" today] in my student days.) He accepted so he might have another year under Osler. Compensation was room and board and an annual stipend of $100. Although he might have continued a second year in this position he decided against it because Osler had resigned to move to Oxford as Regius Professor.

Having decided to enter practice and having decided not to return to his home community where, he said, the profession was not overly friendly to graduates of Johns Hopkins, he chose the South for practice. (Though he does not indicate this, a deciding factor may have been his fiancee—a girl from Kentucky.) Upon consulting Osler in regard to a southern location, he was told that two prominent Nashville doctors had been his (Osler's) students at McGill—Drs. E. B. Wood, physician, and M. C. McGannon, surgeon. Dr. Brush wrote that his fiancee approved of Nashville, only 200 miles from her home. Additionally, a Hopkins graduate and friend, medical referee for the Mutual Life Insurance Company of New York, arranged with its Medical Director to meet Dr. Brush, to whom he offered the "refereeship" which was open at the moment in Nashville, providing $50 to $100 monthly. Thus, Nashville was selected as the place for private practice. The following words from Dr. Brush's autobiography set the tone of his arrival in Nashville:

"I arrived in Nashville on a dark, cold drizzly day in mid-October, 1905. When the trolley turned up 8th Avenue on its way to the Maxwell House I began looking out of the windows on each side of the car and it seemed as if there was a board hanging in front of every house on the street with two to six names of doctors on it. Right then I had an impulse to get off of the car and go back to the Union Station and buy a ticket home because I felt I would never be able to get started in Nashville where I did not know a soul. However I had letters of introduction from three of my former teachers at Johns Hopkins to six well-established physicians here so I decided to continue to the Maxwell House and try my luck here at least for a while. As the trolley turned onto Church Street I happened to be looking out to the right side and I wondered if Tennessee had any game laws because hanging in front of a meat market were a deer, a bunch of rabbits, a bunch of wild ducks and dangling from a wire stretched across the front of the store were about 40 to 50 quail.

"Dr. Osler had given me letters to Dr. Wood and Dr. McGannon. Dr. John Finney had given me letters to Dr. Richard Douglas, Dr. Wm. Haggard and Dr. McPheeters Glasgow. From Dr. Thayer I had letters to Dr. J. A. Witherspoon and Dr. B. J. Sumpter. On the day after my arrival I began calling on the doctors to whom I had letters and met all but Dr. Witherspoon who was out of town at that time. I thought that I would contact him at a later date. I soon learned from my contact with these men that there were three medical schools in Nashville—the University of Nashville, the University of Tennessee, and Vanderbilt University—and that there was intense rivalry among them. In fact, Dr. Glasgow told me that the rivalry was so marked that it would be unwise for me to present my letter to anyone after I decided with which school I wished to be associated unless it was to someone allied with that school. I felt that the most important thing for me to do was to decide on a school and then get my license to practice medicine so I could hang out my 'shingle.' "

Dr. Brush liked Drs. Wood and McGannon more than the others and therefore accepted from Dr. Wood the title of Associate Professor of Medicine in the University of Nashville Medical School.

He found Dr. Glasgow to be especially friendly; he introduced Dr. Brush to Drs. Holland Tigert and Olin West, and shortly they were a foursome eating breakfast and dinner together at the boarding house of the Misses Douglas at 211 6th Avenue, North. They had their own table for four so they might discuss medical topics without upsetting other boarders who might be squeamish. A drive with Dr. Glasgow in his first few days gave Dr. Brush an opportunity to describe the limits of Nashville. The drive out West End to White Bridge Road and a return to the city by Charlotte Avenue revealed only three farm houses beyond the railroad trestle (dismantled in recent years) crossing West End at about Fairfax

Avenue.

In his recollections Dr. Brush mentions only three hospitals in Nashville upon his arrival in 1905, namely St. Thomas, the General (City Hospital) and the Woman's Hospital which Dr. McGannon controlled through its Board of Women. Dr. Brush was named pathologist to this hospital in 1906. (Dr. Brush did not mention the several private infirmaries.) (At this point Dr. Brush deviates from his story to enumerate the several preparatory schools for boys and for girls, the several cemeteries, and names of prominent places of business some of which are still recognized in today's business community.)

The law permitted any member of the medical licensing board to issue a temporary license to practice medicine while awaiting the annual examination. The Nashville Board member, Dr. Harrell, after an interview provided a temporary license. In April, 1906, Dr. Brush passed the written examination for a Permanent License—No. 219.

Because he needed to spend some hours daily at the office of the Mutual Life Insurance Company in the Hitchcock Building, at the corner of 6th Avenue and Church Street, he selected as an office within walking distance a small one-story house at 309 7th Avenue, North. He used the front room as a waiting room. The room behind this became the examination room and, with a "roll-away" bed, doubled as his bedroom. Behind this was a small room or shed containing shelves which he converted into a laboratory. For transportation Dr. Brush purchased a horse and buggy which filled his needs for the five succeeding years. (There were only three automobiles in Nashville in 1905.) In 1910 he bought his first automobile, a "Flanders."

Concerning Dr. Brush's experiences as an obstetrician, he wrote the following. "When I first came to Nashville I had no idea that I would have to do obstetrics but I soon learned that most of my families expected their family doctor to supervise prenatal care, deliver the baby at home as a rule, then care for the mother and baby unless the baby was having some difficulties requiring the services of a pediatrician. So I fixed up an obstetric bag and did my duty. I do not know how many babies I delivered but I know it must have been near 200 because I had the same nurse with me in over 100 cases. This was her count, not mine. I am happy to say that I never lost a mother or a baby. My training in bacteriology and asepsis was satisfactory since I never had a single case of puerperal infection. Of course I had some lacerations but none of them were serious."

Having been appointed as an Associate Professor of Medicine, Dr. Brush was assigned to teach physical diagnosis and clinical microscopy beginning in mid-November.

Parenthetically, it should be recalled that Osler had introduced clinical microscopy as a discipline in undergraduate instruction to American medicine, and his pupils were well schooled in the techniques of that day. One can imagine Dr. Brush's thoughts when he assessed the equipment available for teaching these skills. He stated, "I found that the total equipment of the clinical laboratory consisted of an old microscope without an oil immersion lens, three dirty test tubes, a Bunsen burner, a bottle of Haines solution for testing the urine for sugar, and a bottle of nitric acid for testing for albumin. There were no slides or cover slips, no chemicals for blood work, gastric analysis, stool examination or sputum tests. Of course there was no incubator for bacteriological work. Except for the incubator I had to bring everything from my laboratory for demonstration to the students." He added that he managed "to get by" and that the next year the school provided money for more equipment.

This prompted me to review the catalogues of the University of Nashville Medical Department. The catalogue for 1905-1906 does not mention a course in clinical microscopy. In the following year the curriculum for the third year carried the following: "*Clinical Microscopy*. A combined lecture and laboratory course, in which are taught all the clinical tests of value in diagnosis, four hours a week. Doctor Brush." In the catalogue for 1907-1908, in addition to a repetition of the above, a subheading appeared for the first time under the general "Description of Methods of Teaching"—the *laboratory for Clinical Microscopy*. Among other comments this section included the statement, ". . . the student is shown and compelled to perform for himself all those clinical tests so necessary for the thorough examination of a patient and that can be performed by the general practitioner in his own laboratory. Special stress is laid upon examination in those diseases which are prevalent in the South." The catalogue of the following year includes in this section the words, "each student is equipped with

a microscope and oil immersion lens." I would guess that Dr. Wood, professor of medicine, and others of the faculty considered it a godsend that one of Osler's "boys" had decided to practice in Nashville. Dr. Brush is shown as responsible for the course in physical diagnosis in the third year, as listed in the catalogue of 1908-1909.

A far-reaching impact upon medical education locally was the result of Dr. Brush's interest in bedside teaching. I quote his words telling of his introduction of this method of instruction to Nashville. This was what might have been expected of a pupil of William Osler who introduced the German method of bedside teaching to the Western Hemisphere. He wrote, "Soon after I began teaching at the University of Nashville Medical School I sensed that the students felt that they were not getting any practical training on patients and I asked Dr. Wood if I might begin teaching them on the wards of the City Hospital. Having this so strongly impressed upon me at Hopkins I felt that they needed it here. Dr. Wood gave his approval but said that Dr. Thompson Anderson, who held the title of Associate Professor of Medicine, also should do bedside teaching if he wished to do so. I started in first and Dr. Anderson rearranged his office hours so he could take another group of senior students. It was remarkable how the idea took hold. Each week our groups would have two to four new men and I learned that they were coming over from Vanderbilt and the University of Tennessee to attend our bedside clinics. (It was a not unusual custom in Europe and in our cities having several medical schools for medical students to monitor teaching exercises of an outstanding teacher at other than their own school.) The next year the other two schools followed suit. A short time after our school year ended I was notified that I had been elected to the local chapter of Alpha Omega Alpha.* This is an honorary fraternity to which men who had done something of value in medical progress may be elected. It was because I had introduced bedside teaching in Nashville that I was elected to membership.

I cannot document as dramatic evidence of Dr. Brush's impact on the clinical teaching in the fourth year curriculum as was possible on that of the third year. The description then (1906-1907) dealt in generalities, even as medical school catalogues do today. "A six-month study of the principles and practice of medicine, and includes lectures, recitations, and clinics at the Nashville City Hospital and the University Free Dispensary. Six lectures and two or more clinics a week. Professor Wood and Doctors Anderson and Brush." In the next three annual catalogues this description was expanded to state the students needed to take histories and do examinations for discussion on patients assigned both on the wards and in the dispensary. In 1908-1909, Drs. Wood and Brush were responsible for these exercises. In 1909-1910, Drs. Brush and McCampbell seem to have carried this burden.

Dr. Brush indicated in his autobiography that he taught in the Medical Department of the University of Nashville College of Medicine until it merged with the University of Tennessee in 1909, continuing his teaching until the removal of this school to Memphis in 1911. He then became a member of the Vanderbilt faculty for two or three years, following which his teaching activities ceased.

In 1910, Dr. Brush was married in Louisville to the Hopkins nurse he had courted in his intern days, and upon returning from a honeymoon trip to Bermuda they set up housekeeping at 303 29th Avenue, North.

As is to be expected, much anecdotal material is recorded over the many years of Dr. Brush's practice of medicine in Nashville. Several items have been selected to either portray medical practice of years past or episodes having local or general medical interest.

In the fall of 1907, Dr. Brush was afflicted with an episode of bilateral acute otitis media, for which he was hospitalized, followed by spontaneous rupture of the eardrums. This is mentioned because of a ten-day visit he made to his

*I feel I must make a correction of what may have needed more clarification. Being certain that no chapter of AOA had been established in Nashville in 1909 I consulted the AOA Directory and ascertained the following. The Hopkins chapter of AOA was established in 1905, two years after Brush's graduation. The Directory revealed that in 1909, 37 alumni were awarded membership in the Hopkins chapter. (This was customary to confer membership on alumni who, because of class standing, would have become members had a chapter been in existence at the time of their graduation.) The 37 alumni members elected in 1909 began with four of the first class (1897), followed by the names of other well-known graduates in the succeeding classes through 1905. Dr. Brush was one of the class of 1903 who, along with Miller, Rainforth, Watson and Young became alumni members in 1909. It is possible that inquiries were made before conferring alumni membership; if so, I am sure instituting bedside teaching in Nashville would have been a "plus" in favor of granting an AOA key.

sister in Toronto for convalescence. There he spent his days with the pathologist of the Toronto General Hospital who had become interested in the therapeutic use of autogenous vaccines. Upon his return to Nashville Dr. Brush applied these techniques of growing organisms from the patient and making vaccines for treatment. The autobiography contains case reports of patients treated successfully with such vaccines. (This form of therapy was used by some of us, especially in the treatment of selected instances of chronic nontuberculous pulmonary disease, up until the advent of the antibiotics.)

Dr. Brush recounts his introduction to tuberculin as a form of treatment for tuberculosis. It was in 1912 that the daughter of a prominent Nashville family returned from Dr. von Ruck's sanitorium at Asheville, N.C., where she had been treated for tuberculosis and was to be continued on injections of von Ruck's tuberculin. After correspondence with Dr. von Ruck, Dr. Brush continued the treatment of the patient until she was well. After successfully treating a second patient, Dr. Brush visited Dr. von Ruck because the AMA had not approved of the treatment, nor did the USPHS. (This should be put into historical perspective. Koch, the discoverer of the *M. tuberculosis,* introduced tuberculin in 1890 as a therapeutic agent. Although it became an important diagnostic tool, it was short lived as a means of treatment. Nevertheless, to my personal knowledge it continued to be used in the treatment of specific forms of tuberculosis by some clinicians of impeccable standing and in well-known institutions up to and into the 1920s.)

Of three major disasters in Nashville in Dr. Brush's lifetime, the break in the water reservoir (1912), the fire of 1916 in East Nashville, and the train wreck at White Bridge Road (1918), the last taxed members of the medical profession. He described the travelers pinned in the wreckage and 20 to 30 doctors giving them injections of morphine to tide them over until they could be extricated. He reports that 100 or more people died.

Dr. Brush recalled the influenza epidemic of the fall of 1918, so reminiscent of my own observations in those months as a driver for a physician member of my family. He described having only three to five hours of sleep at night, keeping no office hours, spending all of his waking hours making house calls and reaching home for dinner at 8 or 9 p.m. Upon arriving home the telephone would begin to ring and he would have 15 or more calls consecutively with only seconds between them. This fast service puzzled him until the supervisor of his telephone exchange, a patient, told him the story. She instructed her operators to make a record of all calls for Dr. Brush which came after 3 p.m. Then when he was at home, patients were called in order, instructed to hold the line until he completed a call, when the next one would be connected to his line. Dr. Brush admits to only two deaths among the many patients he attended during the epidemic.

In the 1920s Dr. Brush became intrigued as did many others of the profession with treatment by physical means (ultraviolet light, diathermy, and galvanic current) and gives anecdotal accounts of therapeutic successes. These were years when salesmen touted their apparatus for the treatment of all manner of ailments, prompting the AMA to develop a Council on Physical Therapy to keep enthusiasm for these modalities within bounds. (Dr. Walter Garry, Professor of Physiology at Vanderbilt, was a member of this Council from 1930-1949, the heyday of physical therapy.)

I had anticipated that Dr. Brush would comment in his autobiography on the advances in medicine which so dramatically changed the outlook in some diseases, either fatal or difficult to manage (insulin, liver extract and the sulfonamides, to be followed in another decade by the antibiotics). They represented unforgettable high points in the first decade and a half of my own medical practice. I suspect that an explanation for not mentioning such matters may be that the objective of Dr. Brush was to comment upon methods of management that had their passing day rather than the advances that have become a part of everyday practice today. So too, with the background of having been a junior instructor with the teacher (Osler) who introduced laboratory methods into the medical curriculum, I expected comments upon the introduction of the electrocardiograph and the continuing expansion of laboratory medicine. Again, these had become so commonplace that Dr. Brush probably thought it unnecessary to comment upon their help in providing medical care.

By contrast, he related an experience illustrative of his training which probably stood in contrast to more common customs in practice. His office in the Eve Building was adjacent to that of Dr. Cowden, who had instituted a suit against

the building's owners because they had rented the space above his office to an optical company. The lens grinding machines made auscultation impossible for Dr. Cowden, and the suit was to force the optical company to vacate its space. Dr. Cowden invited Dr. Brush to his office to examine a patient's heart under the hardship of the machine's noise and to appear as a witness in court. The attorney for the defense led the witness up to the question, "So you would examine the heart of every new patient that came to you?" Dr. Brush answered, "Yes." Then, "You mean that if a man came to you with a sore toe you would examine his heart?" The answer again was, "Yes." Then sarcastically, "Just a matter of professional curiosity I suppose?" After Dr. Brush answered, "You may call it that but it is usually known by the term thoroughness," he was dismissed as a witness.

The remainder of the hundred-page autobiography is devoted in the main to recollections and stories about family, friends, travels, hunting, fishing and the like. (He was married a second time following the death of his first wife.) Among his memories are those of having served as chief examiner for the Board of World Missions of the Presbyterian Church, passing upon the fitness, from a medical viewpoint, of candidates for foreign service as well as a medical review of missionaries home on furlough and of reports about them from other physicians. Dr. Brush commented at length upon the interesting facets of contact with missionaries from over the world over a period of 20 years.

In summarizing his 69 years of practice, he expressed the satisfaction of having the continued loyalty of many of Nashville's families over the years, as well as others of Middle Tennessee, Kentucky, Alabama, Arkansas, Mississippi and South Carolina. Having been "blessed with phenomenal health," and having lost no more than ten days to illness over the years, Dr. Brush could claim continued and long-lasting enjoyment in the practice of medicine.

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Hairy Cell Leukemia—Cell Characteristics and Morphology

L. N. SMITH; S. KRAUSS, M.D.; E. MACHADO, M.D.; and D. WILSON, M.D.

Introduction

Hairy cell leukemia remains a mysterious disorder even though it was first described in 1951 by Rosenthal and Lee, and later by Bouruncle in 1958. The term "reticulo-endotheliosis" was coined around this time, but the disease was later referred to as "hairy cell leukemia" from the cells' hairy appearance in peripheral blood smears. The actual origin of hairy cells is unknown, but there are many ideas, which include the hairy cell as a T-cell variant, a B-cell variant, a reticular cell, or as derived from a population of null cells.[1-3] Monocyte characteristics have been described but so far it has not been possible to identify the cellular origin of the hairy cell. Results of immunocytologic studies of the hairy cell are variable, with most reports indicating varying responses to surface immunoglobulin, phagocytosis, rosette formation with sheep red blood cells, immunoglobin production, adherence, and in vitro culture.[3-5]

A case of hairy cell leukemia was diagnosed at the University of Tennessee Hospital and an attempt to culture the cells in vitro was made. Cytochemistry and electron microscopy (EM) were performed on the in vitro cells in an attempt to elucidate their characteristics.

Patient Data

A 45-year-old white man with a long history of migraine headaches consulted his physician because of the recent onset of weakness and lethargy, and was found to have anemia and leukopenia. He had no clinical evidence of infection or bleeding, and physical examination showed no lymph node enlargement or hepatosplenomegaly.

The initial hematologic findings revealed a hemoglobin level of 8.2 gm/dl, hematocrit of 26.5%, red blood cells 2,820,000/cu mm, platelet count 42,000/cu mm, white blood cell count 1,900/cu mm with 25% segmented neutrophils, 5% stabs, 59% lymphocytes, 7% atypical lymphocytes with hairy cytoplasmic projections, and 4% spindle lymphocytes. A bone marrow biopsy revealed a uniform distribution of small mononuclear cells replacing normal marrow elements, compatible with a diagnosis of hairy cell leukemia.

After the patient was transfused a splenectomy was performed. The spleen weighed 750 gm and microscopic sections showed a diffuse infiltrate throughout the red pulp of small bland-appearing mononuclear cells with occasional indentations and a generally ovoid shape. Most of the cells were positive for tartrate-resistant acid phosphatase. The white pulp areas were somewhat atrophic and almost obliterated by the infiltrate of abnormal cells in the red pulp. Electron microscopic findings of the spleen confirmed the diagnosis of hairy cell leukemia.

Two weeks after surgery, his hematologic picture had improved, with values as follows: hemoglobin 12.4 gm/dl, hematocrit 39.6%, platelet count 175,000/cu mm, white blood cell count 3,200/cu mm with 45% segmented neutrophils, 13% stabs, 40% lymphocytes, and 2% monocytes. A year later, his hemoglobin was 16.2 gm/dl, hematocrit 50%, platelets 220,000/cu mm, white blood count 4,000/cu mm with 28% segmented neutrophils, 3% stabs, 5% eosinophils, 1% basophils, 55% lymphocytes, and 8% monocytes. He remains asymptomatic with the exception of his chronic migraine headaches.

Materials and Methods

Hairy cells were collected from the patient's spleen after splenectomy. Thin slices of the spleen were placed in 5 ml of 1X alpha MEM and minced with sterile scalpel and scissors. The clumps were allowed to settle and the single cell supernate was removed and aspirated through needles of decreasing gauge. The cells were then spun over Ficol-pague at 1,670 rpm for 20 min. Nucleated cells were removed and washed three times in 1X alpha MEM + 100 units pen/step/ml and spun at 1,000 rpm/10 min. The cells were resuspended in 2% FCS in 1X alpha MEM to 3 x 10^6 cells/ml and placed in a 35-mm plastic petri dish and allowed to adhere for three hours. A sample of the cells was cytocentrifuged and Wright stained to determine the percentage of hairy cells recovered. After adherence, the cells in the supernate were counted after combining the supernates. The cells were washed twice and resuspended to 2 x 10^6 cells/ml. The adherent cells were overlaid with 20% FCS in 1X alpha MEM

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with 100 units pen/step/ml. The nonadherent cells were suspended in the same media and incubated at 37°C, 100% H_2O and 7.5% Co_2. The adherent cells were cultured in the same environment. After one week of culture the cells were transferred to 20% FCS in RPMI 1640. The media was changed every three days as during the first week and a cell viability determination was made at this time. After the third week of culture normal human fibroblast conditioned media was added to the cultures in 5% of total media added.

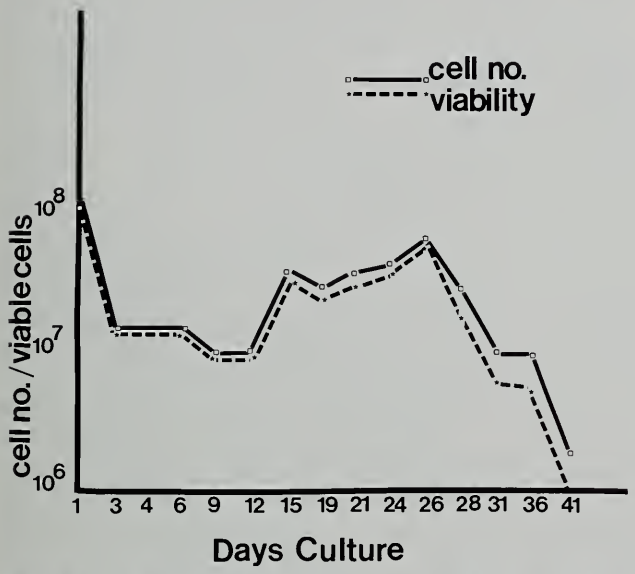


Figure 1. Viability and cell number of hairy cells in vitro for six weeks.

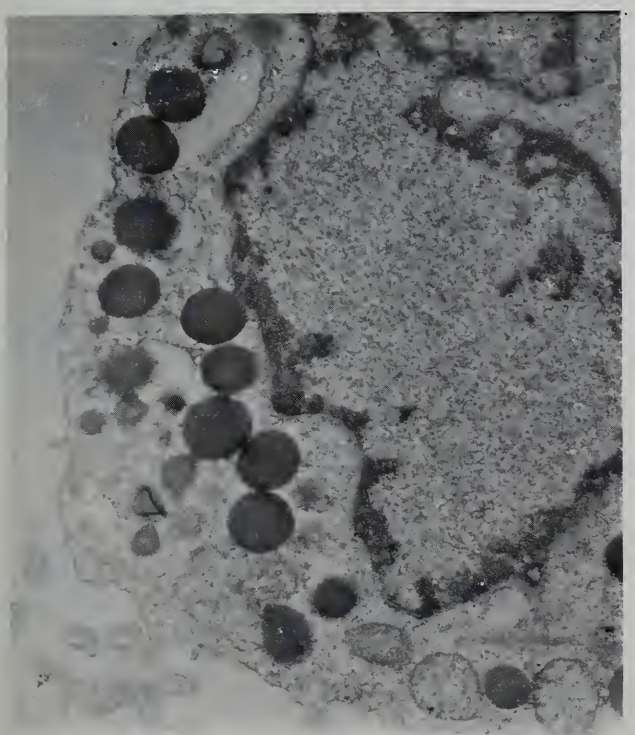


Figure 2. Transmission electron micrograph of hairy cell from culture at 28 days. Note lipid droplets in cytoplasm. Characteristic for cultured cells. (×19,000)

Cytochemical staining. Tartrate resistant acid phosphatase (TRAP) staining was performed on peripheral blood leukocytes using the method of Sigma.[6] This technique is considered diagnostic, if positive, for hairy cell leukemia.

Spleen biopsy. Scanning electron microscopy (SEM) of spleen tissue was done using normal EM techniques.[7]

Immunocytology. Techniques used to identify surface immunoglobin characteristics, phagocytic properties, and cell type were those outlined in the WHO report.[8]

EM of cultured cells. EM of cultured hairy cells was performed using standard fixation and preparation techniques.[7] Both SEM and transmission electron microscopy (TEM) were done. The cultured hairy cells were subjected to solutions of various pH ranging from 6.8 to 7.6 in order to determine if cells maintained their hairy appearance in solutions of different pH's. The cells were removed from culture and resuspended in the various pH solutions to 2 x 10^6 cells/ml.

Results

Cell Culture. The growth of hairy cells in vitro lasted for five weeks and reflected more of a cell maintenance phase than actual cellular division. Normal human fibroblast conditioned media, added at the start of the fourth week, resulted in a brief growth period (Fig. 1). The conditioned media was used continuously from that time, but with no additional results. Electron micrographs taken during this time revealed lipid droplets in the cells, which is considered a characteristic of

TABLE 1

CHARACTERISTICS OF HAIRY CELLS ISOLATED FROM SPLEENS AND CULTURED IN VITRO

Cell Membrane Receptors (%)	
Surface immunoglobin	
IgG	0—Negative
IgM	0—Negative
IgE	0—Negative
Rosettes	
E	0—Negative
EA	0—Negative
EAC	0—Negative
Cytochemistry	
Tartrate resistant acid phosphatase	—Positive
Phagocytosis of latex beads	—Negative
% adherence	45



Figure 3. Scanning electron micrograph of spleen sinusoids from patient with hairy cell leukemia. Note hairy cells lying in sinusoid adjacent to reticular-like structures. (×1,300)

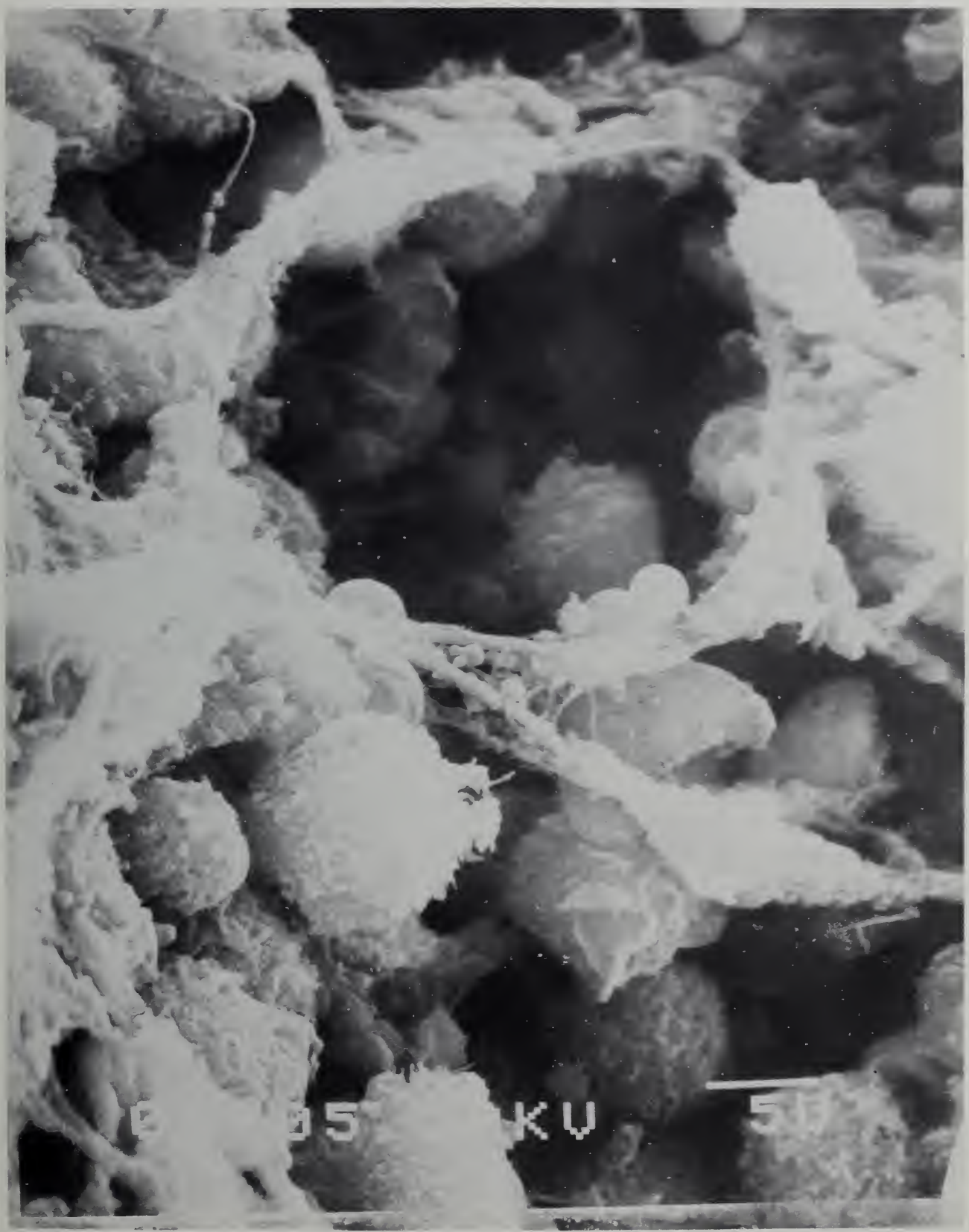


Figure 4. Enlargement of scanning electron micrograph of spleen to show hairy cells in spleen. (×4,500)

viable cells in vitro (Fig. 2). By the end of the fifth week the cultures were beginning to show signs of degeneration, so the remaining viable cells were cryopreserved.[9]

Cytochemical Staining. Acid phosphatase tartrate resistance of peripheral blood hairy cells was positive (Table 1).

Spleen EM. Scanning electron micrographs of hairy cells in the spleen revealed the cells lying within the sinusoids (Fig. 3). An enlargement of one area of Fig. 3 shows the cells with a reticular cell type location in the sinusoids, and the cells have their hairy appearance (Fig. 4).

A transmission electron micrograph of a group of hairy cells from the spleen reveal either pinocytosis or exocytosis as an active or common oc-

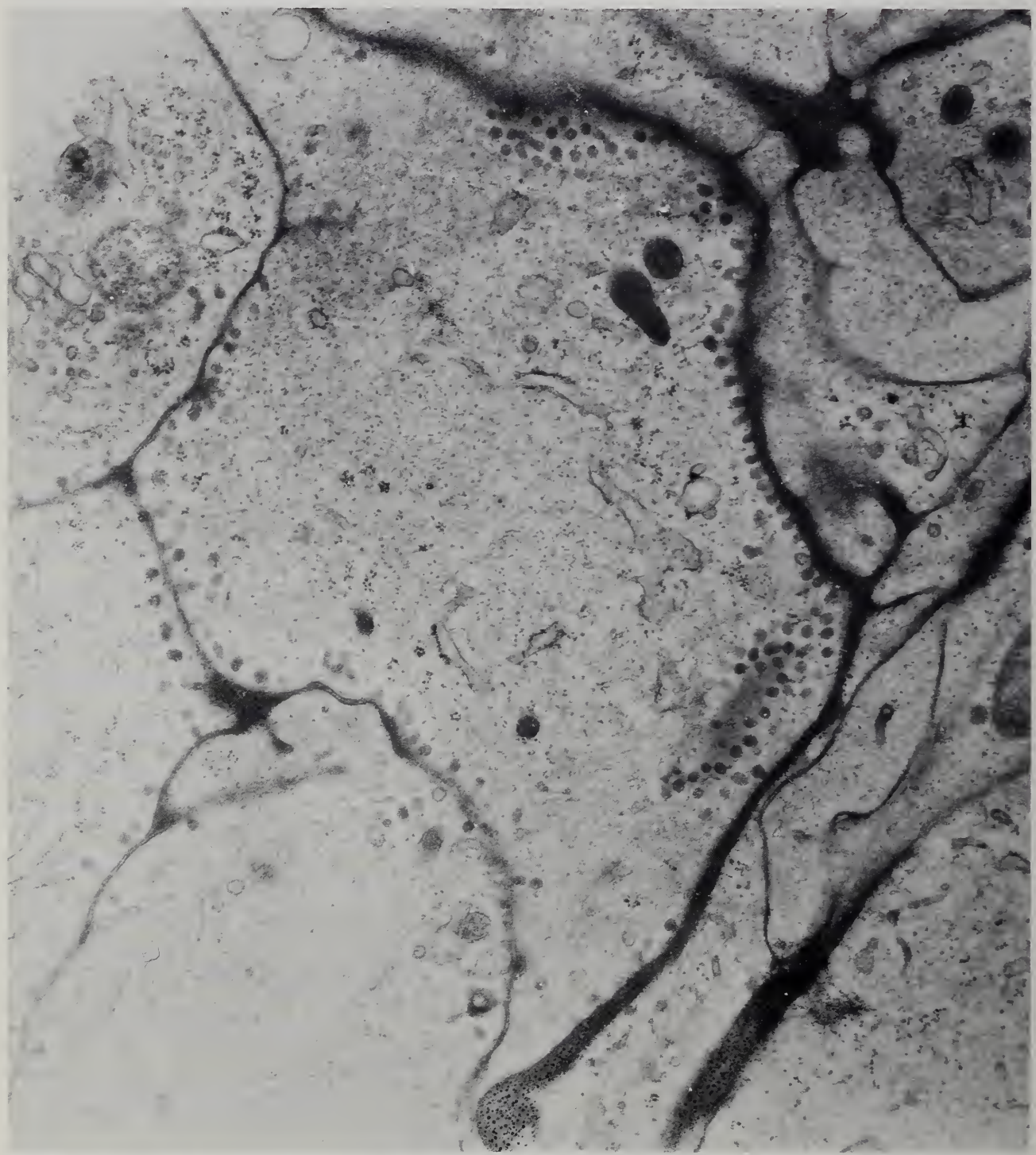


Figure 5. Transmission electron micrograph of hairy cells in spleen. Note exocytotic or pinocytotic vesicles along membrane of cell. Also notice lack of cytoplasmic bodies. (×28,500)

currence for these cells (Fig. 5).

SEM and TEM of the hairy cells revealed no new intracellular structures that may have been characteristic for hairy cells.

Immunocytology. The hairy cells removed from culture did not display characteristics of either T-cells or B-cells (Table 1). The cells did adhere (45%) during the primary isolation of the cells from the spleen (Table 1). This adherence may be characteristic of their location in the spleen, but a monocytic nature was not demonstrated because of failure of the cells to phagocytose latex particles.

pH variation effect on cell morphology. Cell morphology of the hairy cells varied only slightly in different pH's (Figs. 6-8) while normal human lymphocytes varied a great deal morphologically (Figs. 9-11) after being subjected to different pH's.

Discussion

The growth of hairy cell leukemia cells in vitro has provided some information as to the nature of the cells. As previously reported, hairy cells have a low proliferative capacity in vitro and do not display what are considered usual neoplastic characteristics[10] such as multiploidy, anuploidy and uncontrolled growth. The significance of fibroblast conditioned media is unknown other than the fact that it stimulated some cells to continue on what appeared to be an upward mitotic shift. The effect was transient but significant as far as preventing an early decline in cell number and viability (Fig. 1). Some cells were cryopreserved with the hope that some workable culture system will be developed for hairy cells.[9]

Cytochemical staining revealed a positive TRAP staining, which is now considered a diagnostic property of the cells, although care must be taken because cells of some lymphoproliferative disorders also display this characteristic.[4,6]

SEM of spleen biopsies revealed hairy cells lining the sinusoids of the organ (Figs. 3 and 4). This location would seem to imply a reticular or mononuclear type function to the cell, although exact identification of its function is unknown. The discovery of many pinocytotic or exocytotic vesicles along the cell membrane as seen in Fig.



Figure 6. Scanning electron micrograph of hairy cell subjected to a pH of 6.8. Note similar membrane morphology to pH's 7.3 and 7.6. (×6,500)



Figure 7. Scanning electron micrograph of hairy cell subjected to a pH of 7.3. Contrast to pH's 6.8 and 7.6. (×10,000)

5 complicates the discussion of hairy cell function, since the cells of this study did not phagocytize latex particles. This failure to phagocytize may mean the vesicles in Fig. 3 are exocytotic, or that hairy cells do not phagocytize in vitro. The fact that 45% of the primary suspension of cells adhered to the plastic surface compounds the problem, in that this is a characteristic of monocytes (Table 1).

Immunocytology supplied little evidence as to the actual type of cell in this case of hairy cell leukemia, because the cells did not bind surface immunoglobin of α, γ or μ class, and formed no type of rosette (E, EA, or EAC). This failure to demonstrate cell surface markers leaves the actual origin and cell type of hairy cell leukemia open in this case. Golde et al[1] has reported growing a T-cell variant of a hairy cell leukemia in culture but this report conflicts with an earlier publication on hairy cell leukemia.[10] A more recent publication seems to imply that the hairy cell is of B-cell origin, but this again is unclear.[11]

The hairy appearance of the cells appears to be a morphologic modification inside the cell at the membrane level. SEM done with both normal lymphocytes and hairy cells subjected to different pH's revealed a significant variation in the normal lymphocyte's membrane structure (Figs. 9-11), but little or no alteration in hairy cell membrane morphology (Figs. 6-8).

It was disappointing not to find some of the more common inclusions or ribosomal-lamella complexes in the cells. Fibrillary inclusions are reported to appear in 1% to 15% of the hairy cell leukemia cases reported and ribosomal-lamella complexes in approximately 50%.[12] The ribosomal-lamella complexes were first described by Katayoma.[13] The true significance of these inclusions and complexes is unknown, but must not be related to the alteration of the membrane into the hairy appearance. The cytoplasmic "hairy" projections were present in this case even though the inclusions were absent. Obviously there is an alteration of the cell's cytoskeleton or membrane components.

The exact nature of hairy cell leukemia is still

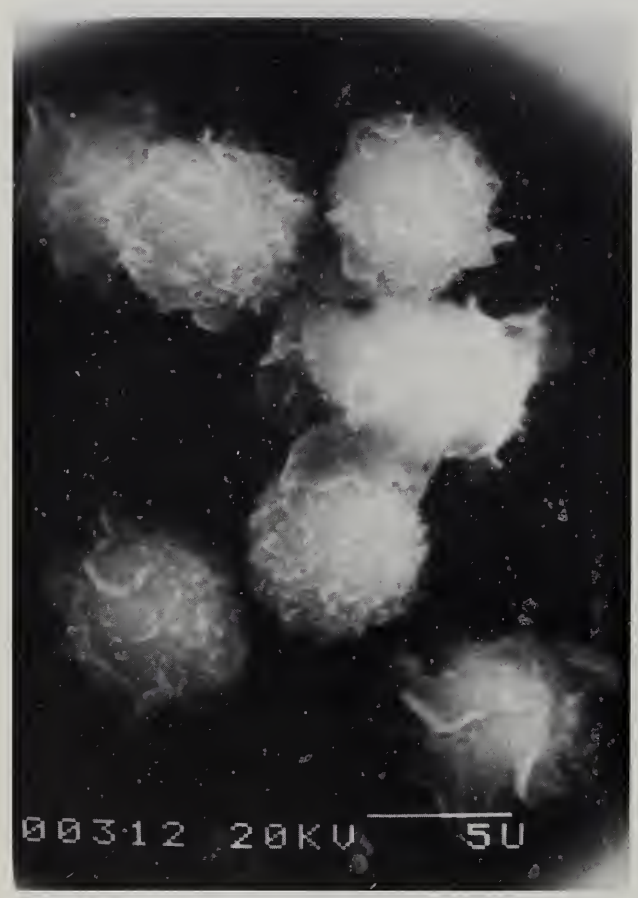


Figure 8. Scanning electron micrograph of hairy cell subjected to a pH of 7.6. Contrast to pH's 6.8 and 7.3. (×6,500)

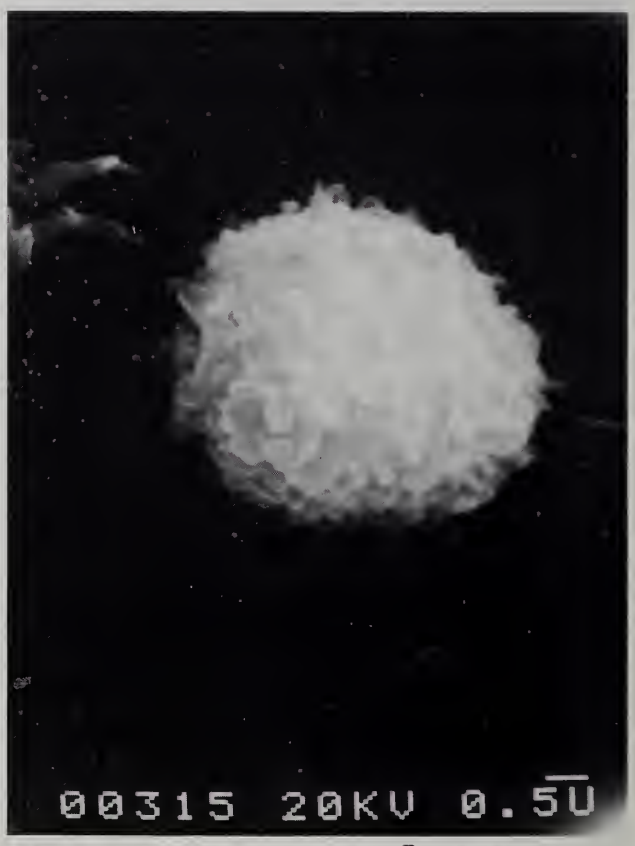


Figure 9. Scanning electron micrograph of normal peripheral blood lymphocyte subjected to pH of 6.8. Note similarity to hairy cell morphology regardless of pH, but significant difference between other lymphocytes at different pH's. (×20,000)



Figure 10. Scanning electron micrograph of normal peripheral blood lymphocyte subjected to pH of 7.3. Compare and contrast to normal lymphocytes at various pH's and hairy cells at various pH's. (×20,000)

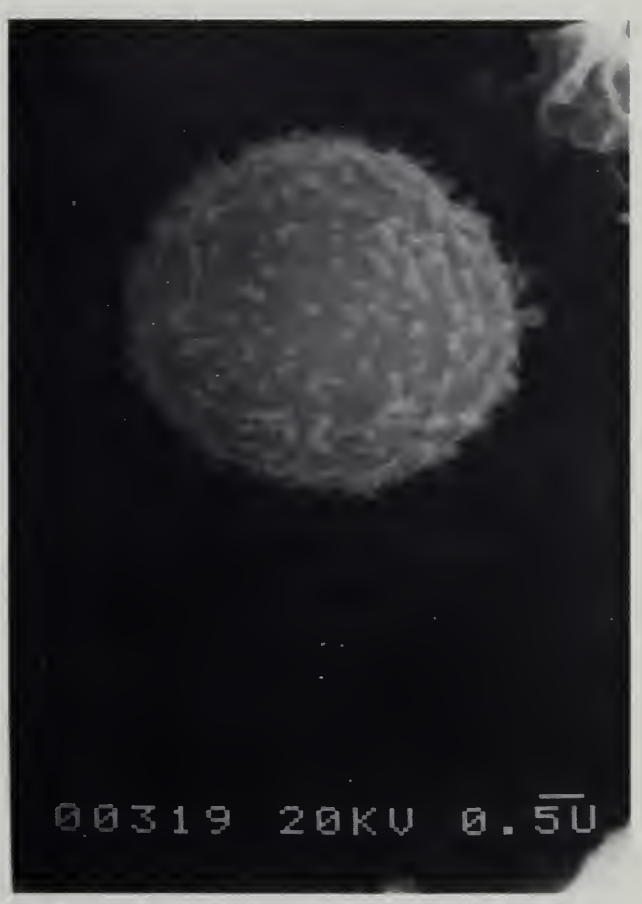


Figure 11. Scanning electron micrograph of normal peripheral blood lymphocyte subjected to pH of 7.6. Note significant membrane changes as compared to the other pH's and hairy cells. (×20,000)

conjectural, indicating the need for more intensive investigation into the true nature of this disorder, resulting in a more effective treatment.

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Genital Herpes

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The true incidence of any sexually transmitted disease (STD) cannot be accurately determined due to the problems of asymptomatic carriers, misdiagnosis, and under-reporting. Thus, whether genital herpes ranks first or second among the most common STDs is debatable. There is general agreement, however, that herpes is unquestionably the most important STD. Gardner[1] lists seven reasons for this importance: (1) the increasing incidence, (2) the chronic/recurrent nature, (3) the lack of an acceptable treatment, (4) the absence of good epidemiologic control, (5) the possibility of serious sexual dysfunction, (6) the devastating perinatal effects, and (7) the association with cervical cancer.

There are two major classifications of herpesvirus infections in man, herpesvirus type I (HSV-1) and herpesvirus type II (HSV-2). Statistics vary, but generally speaking 85% to 90% of the oral and ocular infections are caused by type I; conversely, 85% to 90% of urogenital lesions are caused by type II. One recent study of 90 women with genital herpes reported 40% of the cases were caused by the type I virus.[2] It is important to remember, therefore, that a certain degree of overlap does exist and that cross infection can occur following autoinoculation or oral-genital contact. The remainder of this discussion will refer to HSV-2 unless specified otherwise.

Incidence

Rawls[3] reported that 9% of private patients and 22% of clinic patients had serologic evidence of prior HSV-2 infection. Another study[1] reported that 13.5% of unmarried, private patients using either the oral contraceptive or the intrauterine device were treated for herpes genitalis. In 1976, information was published on the results of screening asymptomatic pregnant patients for herpes, indicating a 0.65% overall incidence of positive cultures.[4]

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Interestingly, studies on men have yielded similar results. In one study, 21% of men with genital lesions had HSV-2 in their semen, and 15% of 190 asymptomatic men (ages 15-85) had HSV-2 in surgical specimens taken from the urethra, prostate, or vas deferens.[5] The implications for male infertility, carcinoma of the male reproductive system, carcinoma of the cervix, and possible contaminated semen for artificial insemination remain to be studied.

Clinical Features

The severity of symptoms in a primary infection is highly variable. Symptoms such as a low grade fever, mild paresthesia, or burning generally appear three to seven days after exposure and may precede any visible lesions. Subsequently, the characteristic vesicles appear, eventually rupturing to produce painful ulcerated lesions. Primary infections may persist for three to six weeks and are frequently extensive, involving the labia majora and minora, the vagina, cervix, and perianal skin.

A particularly distressing characteristic of herpes infections is their tendency to recur without reinfection. The virus appears to be harbored in the dorsal nerve root ganglia of sensory fibers and is capable of migrating down the fibers to the affected area when appropriately stimulated. Approximately 50% of patients experiencing a primary infection will have a second attack within six months. Fortunately, the recurrent episodes are usually less severe and less extensive. As with many other viral illnesses, recurrent herpes infections have been associated with periods of diminished host resistance, i.e., generalized febrile episodes, emotional stress, systemic or debilitating disease, and immunosuppressant therapy.

Diagnosis

One should suspect herpes whenever ulcerative lesions of the vulvovaginal tissues are encountered. Many diagnostic aids are available.

The most accurate method of diagnosis is cell

culture, and the best source of material for culture is the base of an ulcerated lesion or an unruptured vesicle. Depending upon the laboratory, however, culture results may take from two to six days to obtain—a distinct disadvantage when dealing with a distraught patient. Cell culture also suffers a multiplicity of sources of error, including culture technique, age of the lesion studied, and transport mechanism. It is important to remember that the virus is heat labile; cultures should be kept on ice and transported to the laboratory as soon as possible after collection unless special media are available, which will permit the virus to be transported at ambient temperatures without significant loss of virus activities.[6]

Cytologic evaluation is one of the more common methods. A smear is made of the lesion and examined for characteristic cellular changes: (1) large, glassy-appearing nuclei, (2) multi-nucleated giant cells, and (3) acidophilic intranuclear inclusion bodies. Routine Pap smears, however, are positive in only about 75% of culture-proven cases.[7] Fluorescein-tagged or enzyme-linked herpesvirus antibody is more specific and has the additional advantage of being relatively independent of the presence of live virus. In fact, Vestergaard and Jensen[8] consider the enzyme-linked immunoabsorbant assay (ELISA) to be a more sensitive diagnostic test than is culture.

Complement fixation or neutralizing serum antibody titers are available from some laboratories. These titers will generally demonstrate only a rise in the convalescent phase of a primary infection. Thus, their value in the diagnosis of recurrent lesions is limited. Other methods of diagnosis—such as electron microscopy—are primarily of academic interest.

Herpes and Pregnancy

Genital herpes infections assume increased importance for the pregnant patient, since neonatal herpes can be tragically debilitating, if not fatal. The most common source of infection for the newborn is a vaginal delivery through an infected birth canal. However, transplacental (hematogenous) and transcervical (ascending) infections have also been reported, the latter usually being associated with ruptured membranes. The situation is particularly distressing, since 33% to 50% of infected pregnant women are asymptomatic and have no visible external lesions.[9,10]

Disseminated herpes is being increasingly reported during pregnancy, particularly in the third trimester.[11] Actually, disseminated herpes in healthy adults is rare unless associated with neoplasia, burn therapy, or immunosuppressants. However, since 1969, five cases have been reported in pregnancy—all in the third trimester. Interestingly, in three of the five cases, the initial lesions were oral. Baker et al[12] suggest that pregnant women are more susceptible to viral infections due to decreased cell-mediated immunity, which may be related to progesterone levels.

As with many other illnesses, the complications of herpes during pregnancy depend to a certain extent upon the gestational age at the time of the infection. Also, the complications are almost uniformly more frequent and more serious for primary infections. In the first trimester, a three-fold increase in spontaneous abortions has been reported.[13] Some studies have reported a 50% early pregnancy loss for primary cases.[14] Although congenital abnormalities have been reported following maternal herpetic infections, the incidence is rare, no specific syndrome has been identified, and a causal relationship has not been established.[7]

The principal concern when treating pregnant patients with herpetic lesions late in gestation is to avoid neonatal infection. Neonatal herpes can be disseminated, localized, or asymptomatic; about one-third of affected infants will have no ocular, oral, or cutaneous manifestations. Although the incidence of infected neonates is about 1 per 7,500 deliveries, the disease has about a 50% to 60% mortality rate. Some report the mortality to be 90% for disseminated disease. Those infants who do survive frequently suffer serious neurologic sequelae. As might be expected, the type II virus is the etiologic agent in about 75% of neonatal cases. Kibrick,[15] however, points out that the risks to the newborn are the same whether the infecting agent is HSV-1 or HSV-2.

Since the average age of onset of illness is 11 days for the localized CNS disease and 16 days for disseminated infection, certain infants should be considered at risk for developing herpes: (1) those whose mothers were culture positive at delivery or had clinically suspicious lesions at the time of admission, (2) those whose mothers had a strong history of recurrent genital herpes infections, and (3) infants whose mothers had a documented primary infection during the current pregnancy. Again, a maternal primary infection seems to be associated with a worse prognosis for her affected newborn. This may be due to primary infections having higher viral titers or to

the fact that primary vulvar infection usually involves the cervix. Also, infants of mothers with recurrent infections may derive some benefit from passive maternal antibody production.[4]

Scalp electrodes are an obvious source of entry for pathogenic organisms. Recently, Goldkrand[16] reviewed seven cases of neonatal herpes linked to a scalp electrode. One case was fatal; five of the seven cases were asymptomatic without a maternal history of previous herpes infection, indicating the necessity for a high index of suspicion. The implication is that the use of a scalp electrode or fetal scalp pH sampling may be ill-advised in those patients previously mentioned at risk for neonatal herpes infection.

Screening all prenatal patients for herpes is currently not practical; however, cultures and/or cytologic studies should be performed on patients at risk—including patients with suspicious lesions, patients with a history of recurrent herpes, and patients with affected partners. Such patients should be evaluated at least twice during the last six weeks of pregnancy, preferably by culture and careful vaginal inspection.

The value of amniocentesis is questionable. Block and Goodner[17] reported a case in which the amniotic fluid cytology was falsely positive. Zervoudakis et al[18] have reported a case in which an amniocentesis performed on a patient with a seven-year history of recurrent herpes resulted in a positive amniotic fluid culture and an unaffected infant. The fact that positive amniotic fluid cultures in the presence of intact membranes are relatively rare[19] supports the suggestion of Boehm et al[20] that the information to be gained from the procedure does not warrant its inherent risks.

Several different criteria to determine the most appropriate method of delivery have been published. While all are based on the probability of an infected neonate, some criteria give more weight to ruptured membranes than others. One set of guidelines was established by a joint meeting of the Committee on the Fetus and Newborn and the Committee on Infectious Diseases of the Academy of Pediatrics.[7] Their report suggested that if negative virologic and/or cytologic studies were obtained within one week of delivery, the patient should be permitted to deliver vaginally. If the patient's virologic and/or cytologic studies were positive within one week of delivery or if lesions were present, they recommended that a cesarean section be performed if the membranes were intact or ruptured for less than four hours. In the opinion of the joint committee, there was "probably" no advantage to cesarean section if the membranes had been ruptured for more than four to six hours.

Another plan was developed by Grossman et al,[10] who evaluated 57 women with culture-proven genital herpes during pregnancy. Beginning at 36 weeks, they performed weekly cultures. The method of delivery was determined by the most recent culture result; delivery was vaginal if the most recent culture was negative and was by cesarean section if the culture was positive or active lesions were present, regardless of the status of the membranes. Nineteen patients (33%) had cesarean sections; 6 of these 19 had rupture of membrane for more than four hours (range 6-30 hours). Fifty-eight of the 60 infants had uneventful neonatal courses. The only two deaths were a set of premature twins (28 weeks) whose viral cultures were negative. Since there was no perinatal mortality due to herpes, the authors suggest the method of delivery should be based upon the most recent culture result (provided it was obtained at least three days prior to the onset of labor).

Another protocol for the management of pregnant patients with herpes was developed by Boehm et al.[20] Patients with suspected herpes lesions were cultured and the method of delivery was determined by the culture result. Those whose last culture prior to labor was positive underwent cesarean section. Those whose cultures were initially negative and those whose positive cultures converted to negative when repeated were considered for vaginal delivery. During a four-year period, 120 pregnancies were managed according to this protocol and none of the infants was affected.

These suggested guidelines represent a significant departure from the earlier liberal use of cesarean section for the patients who had documented herpetic infections within four to six weeks of delivery. Although these recent studies have been very promising, the published results need to be confirmed. Patients treated according to such protocols require close follow-up, particularly in the neonatal period, to be certain that infants who might have become symptomatic after discharge from the hospital are not overlooked. If protocols in which the method of delivery is determined by the most recent culture result continue to yield good perinatal outcomes, many women may possibly be spared an unnec-

essary operative delivery.

Regardless of protocol, postpartum care of both the mother and the newborn should be individualized, based on the degree of risk of infection. Infants delivered vaginally of infected mothers should be considered at high risk and isolated. They should have viral cultures, liver function tests, and spinal fluid examinations. The infant should be hospitalized for two weeks and circumcision should be delayed. Infants delivered by cesarean section with intact membranes are at a somewhat lower risk and should be segregated from other newborns, observed carefully for several days, then seen weekly for the first month.

The mother should require little more than routine care, with special emphasis on postpartum and perineal hygiene. Rooming-in may actually be advantageous, since the infant would not return to the nursery. Breast-feeding is permissible as long as there are no breast lesions and other external lesions are covered. It has not been determined if herpesviruses are transmissible in breast milk; however, about 25% of women with serologic evidence of cytomegalovirus, a virus related to herpes, do excrete the virus in their milk.[21]

Treatment

Currently there is no cure for herpes. Therapy is directed toward (1) relief of symptoms, (2) prevention and treatment of complications and secondary infections, (3) shortened duration of primary infection, and (4) decreased frequency of recurrence. Numerous treatments, such as those listed in Table 1, have been proposed. While it is not within the scope of this article to discuss all the suggested therapies, a few points of interest should be noted.

Understandably, much of the research related to the treatment of herpes has focused on systemic therapy for severe clinical disease; for although localized infections are annoying and painful, they are not fatal or permanently disabling. Also, since the disease is characterized by spontaneous, symptom-free remissions, it is frequently difficult to evaluate to what extent a clinical response is due to any given therapeutic regimen.

Acyclovir (9-[2-hydroxyethoxymethl]guanine) is a drug recently introduced by Burroughs-Wellcome Laboratories. Its mechanism of action appears to be unique in that it is activated only while in an infected cell.[22] Preliminary reports of its use in cancer patients with severe herpetic infection have been encouraging.[23,24] A topical preparation containing acyclovir has recently received FDA approval for use in primary infections. In a double-blind study comparing topical acyclovir and a placebo, Corey et al[25] found that among patients with primary lesions, the acyclovir users had significant decreases in the mean duration of viral shedding, the mean duration of local pain or itching, and the mean time to healing. Among patients with recurrent lesions, they found similar significant improvements in male patients, but not in women.

Preliminary results of the research trials of oral acyclovir therapy in humans have demonstrated that the drug is well tolerated and shortens the course of both initial and recurrent genital herpes.[26,27] The use of intravenous acyclovir on patients with primary herpes has been reported in England with similarly promising results.[28]

Vidarabine (also called adenine arabinoside) is thought to be a virostatic purine nucleoside that reduces viral replication, decreases the antigen load, and allows the host response to bring the infection under control.[29] Whatever its mechanism of action, it has been used with considerable success in the treatment of severe neonatal infection. Idoxuridine (IDU, Dendrid, Herplex, Stoxil) is a thymidine analogue that interferes with DNA metabolism and thus inhibits HSV replication. It has distressing side effects—stomatitis, alopecia, leukopenia, thrombocytopenia—and is not effective topically unless combined with an agent to improve skin penetration.[30] The effectiveness of both vidarabine and idoxuridine against the type II virus has been questioned.[5]

Some of the other methods inhibit glycosylation (2-deoxy-D-glucose and tunicamycin) while

TABLE 1

PROPOSED TREATMENTS FOR HERPESVIRUS INFECTIONS

Acyclovir	Cytosine arabinoside
Idoxuridine	2-deoxy-D-glucose
Vidarabine	Tunicamycin
Cytarabine	Photodynamic inactivation
Levamisole	Herpesvirus vaccines
Topical ether	Cell mediated immunity
BCG	Povidone-iodine
Herpigon	Lithium carbonate
Lysine	Phosphonoformic acid
Topical zinc	Pokeweed Antiviral Protein
Vitamin E	Prostaglandin inhibitors

others are contraindicated because of extreme toxicity or local irritation. Photodynamic inactivation has been abandoned because of its possible carcinogenic potential. The therapies of the future may be prostaglandin inhibitors, stimulators of cell-mediated immunity or vaccines. As Rapp recently pointed out, "Herpesviruses are probably the most complex viruses known to infect humans. They have more genes than any other virus. . . . But there's reason for hope: the only other virus that approaches this complexity is the smallpox virus, which has been practically eliminated."[31]

Summary

Genital herpes infection is the most important of our sexually transmitted diseases. A large segment of our population suffers the pain of its acute lesions and the anxiety of its unpredictable recurrence. It kills and disables innocent newborns whose mothers—despite adequate prenatal care—may have had an asymptomatic infection. It frustrates the medical profession, which has been unable to cure or control it. Until a successful treatment is developed, only symptomatic pain relief is available. When the infection occurs during pregnancy, every effort should be made to monitor the patient closely during the last weeks of gestation to reduce the chances of delivering the infant through an infected genital area.

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Chief Justice Walter McLaughlin retired in 1977 to join his sons' Boston law firm. After ten years on the Massachusetts Superior Court, he was asked what he found most striking about returning to private practice. "The fees," he snapped. "They are outrageous. With the cost of litigation these days, I think clients would often be better off if they just met in the halls and threw dice. Certainly it would be cheaper."

Time (7-27-81)



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Polyarteritis Nodosa With Hepatitis B Antigenemia

CHARLES E. KOSSMANN, M.D., Editor

RANDALL C. FREDERICK, M.D.
(Chief Resident in Medicine)

A 26-year-old unemployed black man came to the City of Memphis Hospital complaining of abdominal pain and loss of weight. For one month he had crampy epigastric and hypogastric pain unrelated to meals and unrelieved by antacids. He also had constipation, anorexia, and loss of taste for cigarettes. He denied exposure to sources of hepatitis. He was evaluated by a physician in Alabama approximately two weeks before admission, where an upper gastrointestinal series was reported as positive for an ulcer on the "back of his stomach." He failed to respond to cimetidine and antacids and came to our institution because the pain became worse while he was visiting in Memphis.

His past medical history and family history were noncontributory. He smoked one and one-half packs of cigarettes per day and consumed alcohol rarely. There was no history of chemical dependence.

The patient was a thin black man in mild distress with abdominal pain. The rectal temperature was 100.4°F, blood pressure 120/80 mm Hg, heart rate 88 beats per minute and regular, respiration 24/min. There was no scleral icterus. The neck was supple, without adenopathy, and thoracic examination was negative except for an S_4 heard in late diastole. The abdomen was scaphoid, but tender in the periumbilical and hypogastric areas, and bowel sounds were increased. Neither the liver nor spleen nor any masses could be felt.

The hematocrit was 37.9%, the white blood cell count 17,200/cu mm with 61% segmented neutrophils, 5% eosinophils, 11% monocytes, and 23% lymphocytes. The sedimentation rate was 71 mm in one hour. Specific gravity of the urine was 1.017 with a pH of 5.5; microscopic examination revealed 10 white blood cells and a rare red cell in each HPF. The serum sodium was 133, potassium 4, bicarbonate 28, and chloride 95 mEq/liter; the BUN was 10, glucose 107, bilirubin 1.2, and calcium 8.9 mg/dl. Thoracic and abdominal roentgenograms and the electrocardiogram were normal.

His course in the hospital was prolonged and involved. Initial workup included an upper gastrointestinal endoscopy, which did not corroborate the earlier roentgenologic impression of gastric ulcer, and a repeat upper gastrointestinal series and a barium enema were normal. An isotopic scan of the liver and spleen revealed a diffuse hepatic uptake of nuclide, suggestive of hepatitis, and the serum was positive for hepatitis B surface antigen (HBsAg). A diagnosis of chronic active hepatitis was entertained when the liver function tests became abnormal. A biopsy of the liver revealed minimal inflammation. With the onset of testicular pain and continued worsening of abdominal pain, the suspected diagnosis of polyarteritis nodosa was confirmed by angiography, which revealed multiple aneurysms of small arteries in the liver, spleen, pancreas, mesentery, and both kidneys.

The patient developed progressive renal dysfunction, hypertension, and ischemic episodes of the gastrointestinal tract manifested by worsening pain. He did not respond to steroids, cytotoxic therapy, or plasmapheresis. Peritoneal dialysis was instituted, but recurrent attacks of what was thought to be mesenteric ischemia occurred, and after one of these he became hypotensive and suffered a cardiopulmonary arrest. Resuscitation was unsuccessful.

The final diagnosis was polyarteritis nodosa (PAN) with associated hepatitis B antigenemia.

ROBERT S. PINALS, M.D.
(Professor of Medicine, Rheumatology)

While listening to this case presentation, it occurred to me that a number of years ago, when I was on the housestaff, a case of polyarteritis nodosa (PAN) would never be presented as such at Medical Grand Rounds. The diagnosis was made at autopsy and the presentation was part of a clinicopathologic conference. This case points up some of the advances during the last two or three decades in diagnostic techniques such as arteriography; in identifying a specific infectious cause in some cases of PAN, namely hepatitis B virus; and in the development of new treatments, which, as we will discuss, have saved some of these patients but, unfortunately, not the individual presented today.

A Multisystem Disease

Polyarteritis is one of the classic medical disorders causing multisystem involvement, and represents a subset of the large family of vasculitides. It involves small and medium size vessels and tends to run a chronic or recurrent course, in contrast to some of the closely related conditions. For instance, in *hypersensitivity vasculitis,* in which there is presumably a single antigenic insult confined to a limited period of time, the patient either succumbs to the acute illness or recovers completely. In contrast, polyarteritis continues over a period of weeks, months, or occasionally years. At necropsy, vascular lesions in

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Presented July 7, 1982.

various stages—acute, chronic, and fibrotic—can be identified.

The vasculitis associated with hepatitis B infection usually conforms to the clinical pattern of PAN. Recognition of the association goes back more than a decade, and at least 75 cases have been reported.[1,2] Approximately 30% to 40% of patients with polyarteritis have circulating hepatitis B antigen. Viewed from the other direction, however, of all patients with hepatitis B antigenemia only a few will develop polyarteritis. In one series of some 600 patients on hemodialysis, 266 had hepatitis B antigen but only three developed the clinical picture of PAN.[3] Therefore, the presence of circulating immune complexes containing hepatitis B antigen is not sufficient to produce the clinical picture of vasculitis. In fact, only about 1% or so of hepatitis B antigenemic patients develop polyarteritis. It is noteworthy that the group of hemodialysis patients cited were likely to have been immunosuppressed or abnormal in other ways. Thus, one would guess that in the universe of patients who carry hepatitis B virus, the percent developing polyarteritis is even smaller than 1%.

Pathology and Pathogenesis

The term periarteritis was coined by Kussmaul and Maier back in the last century.[4] They thought of it as an adventitial inflammation of the arteries, sometimes causing nodular lesions detectable clinically. It was later agreed, however, that the lesion was a panarteritis with involvement of all layers of the vessel wall, sometimes with occlusion of the lumen; hence the preferred term, polyarteritis. The lesions are also linearly intermittent; lengths of an involved vessel may be skipped. Development of an aneurysm from weakening of all layers of the vessel wall is easy to envision.

Diagnosis is confirmed for the most part either by biopsy or angiography. For biopsy one must rely either on surgical specimens of organs like the liver or kidney, or biopsy of muscle. Once in a while, if there is obvious clinical neuropathy involving a sensory nerve that is accessible for study, such as the sural nerve, the vasa nervorum may show the characteristic vascular lesion. The kidney is one of the main target organs. Renal involvement can take a variety of forms, with multiple aneurysms, large or small infarcts, or a true glomerulitis in which red cell casts appear in the urine.

The pathogenesis of the vasculitis (Fig. 1) according to Fauci[5] is related to circulating immune complexes bearing an excess of antigen (HBsAg). Vascular permeability is increased through a variety of mechanisms, including the release of vasoactive materials from platelets and from other cells. Immune complexes, if they are of the proper size, can enter the vessel wall, become entrapped, and attract complement. The comple-

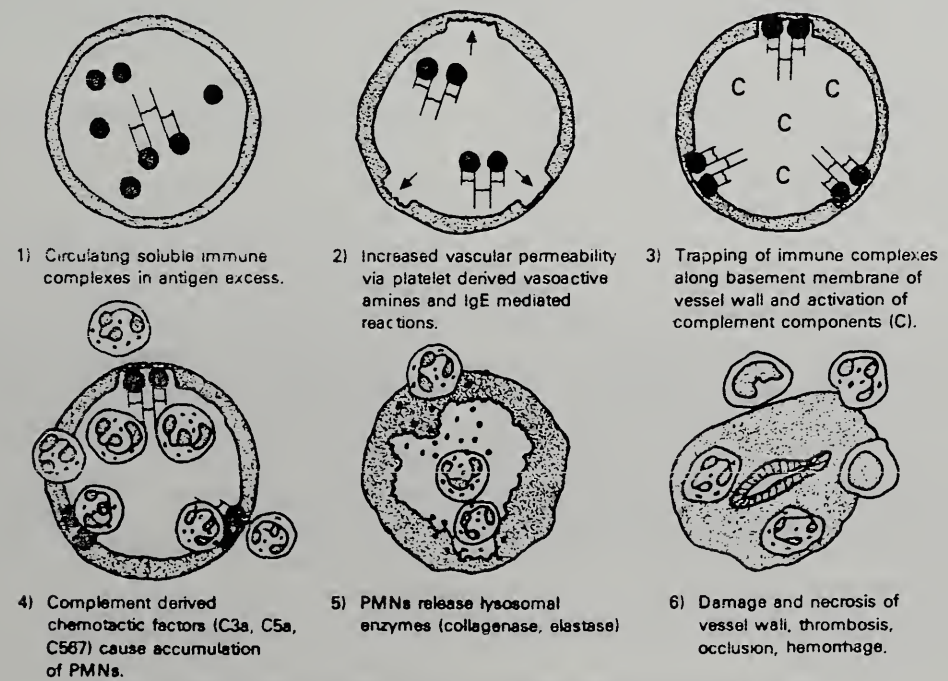


Figure 1. Mechanisms of immune complex-mediated vasculitis (from Fauci et al[5]).

ment cascade is then activated, with production of chemotactic factors that cause the accumulation of polymorphonuclear leukocytes and later other inflammatory cells. These release lysosomal enzymes capable of destroying the vascular wall. Thrombotic occlusion and later fibrosis ensue.

The Antigen-Antibody Complex

As noted above, very few patients with hepatitis, most of whom have circulating antigen-antibody complexes during the acute stage of the illness, develop the clinical picture of polyarteritis.[6] There are many variables relating to immune function and to the conditions under which the complexes exist in the circulation that determine the development of the vasculitis. These include the size of the complexes, probably determined by the number of binding sites and their composition, the immunoglobulin class, the mutual affinity of the antibodies and antigens, the valence or number of active binding sites on each antigen or antibody molecule, the ability of the complex to activate the complement sequence, and, finally, a group of variables included in the term "availability." These relate to the relative concentration of antigen and antibody, the capability for antibody synthesis by the host, and the rate of entry of antigen into the circulation. Complexes with slight antigen excess are most likely to be associated with vasculitis. Large complexes with antibody excess are usually removed from the circulation by the reticuloendothelial system. The hepatitis virus may be a special case with regard to "availability" because the antigen lives in hepatic cells, is probably released at variable rates from time to time and, therefore, has an increased potential for attaining just the right conditions for producing vasculitis as these vary with time.

Hepatitis B Infection

Let us trace the events that occur when infection by the hepatitis B virus is acquired. Of course, the disease may be asymptomatic, as it was in the case presented. A carrier-state may develop, or acute hepatitis may occur, which either resolves or progresses to hepatic failure. Chronic hepatitis can ensue in a few patients, with persistent antigen causing continuous inflammation and liver destruction followed by a stage of fibrosis. Another result may be the development of hepatoma in later years.

There are a number of extrahepatic manifestations, in addition to vasculitis, that have been related to immune complexes containing hepatitis B antigen. The selection of a particular mode of clinical manifestation may have to do with the characteristic of the complexes, and the immune competence of the host. One of the uncommon prodromes of hepatitis B infection is the *arthritis-dermatitis syndrome,* in which a symmetrical or migratory polyarthritis or polyarthralgia appear prior to clinical evidence of liver involvement. If skin lesions occur, they are usually urticarial but may be maculopapular or petechial. In many ways the syndrome may resemble the arthritis-dermatitis syndrome of disseminated gonoccocemia. It is usually transient, and disappears when the patient develops overt hepatitis with jaundice. Some patients with hepatitis may have only membranous or membranoproliferative nephropathy[1] in which hepatitis B antigen can be demonstrated in the glomeruli. Some cases of mixed cryoglobulinemia, usually having nephritis and purpura, seem to be related to cryoprecipitable circulatory complexes containing hepatitis B antigen.

Clinical Picture of Polyarteritis Nodosa

Although polyarteritis nodosa (PAN) generally occurs in people of middle age, it has been reported at all ages. The patient today was rather young (26 years old) but this appears characteristic of hepatitis B virus-induced PAN. Men are generally more commonly affected than women, with a ratio of two or three to one. The clinical picture often involves fever, weight loss, involvement of multiple organs, arthralgia or arthritis, neuropathy, and hypertension. Vasculitis of the kidney frequently leads to renal failure requiring dialysis. Hypertension is a poor prognostic sign probably because it hastens the progression of renal damage.

In the patient under discussion today the presenting complaint was abdominal pain and other gastrointestinal symptoms. Severe abdominal pain with hepatitis, especially with anicteric hepatitis, is uncommon. In this case there appeared to be an alternative explanation in terms of a peptic ulcer, but it was not confirmed on restudy. Vasculitis in the intestine may result in many dire consequences, including hemorrhage, infarction, and perforation. The clinical signs in this case suggested just such a catastrophic terminal event. This patient did not have the necrotizing skin lesions often associated with PAN. Although they are characteristic in appearance, often raising the possibility of the diagnosis in a patient with a

puzzling multisystem disease, most cases of PAN reported in recent literature do not have them.[7] Cardiac and cerebral infarction are frequent, but not as common as gastrointestinal and renal involvement. Thus, depending on the organs or systems involved, patients may show a broad spectrum of localizing signs and systems, in addition to constitutional features such as fever, weight loss, fatigue and weakness.

Laboratory Data

The laboratory findings in a number of series have been reported.[7] The erythrocyte sedimentation rate is almost always elevated in PAN, even in the presence of hepatitis. This is somewhat unexpected, because hepatitis is one of the acute inflammatory diseases in which low or normal ESRs are characteristic. Perhaps the elevated ESR in the patient presented today was a clinical clue suggesting the possibility of superimposed vasculitis. Leukocytosis and thrombocytosis are common. Anemia may be of the microangiopathic hemolytic type, but more often is the nonspecific anemia of chronic disease. There are various abnormalities of renal function, such as proteinuria and hematuria. Measurement of complement components is often performed in cases of suspected polyarteritis, since hypocomplementemia is frequently associated with immune complex deposition, but, complement levels are seldom useful in diagnosis. Although C_3 or C_4 will often be depressed in PAN, circulating levels of complement depend not only on utilization and fixation in vessel walls or tissue, but also on the rate of synthesis; in short, the levels represent the net balance between removal and manufacture. Quite often the serum complement is normal in the face of evidence of tissue deposition. Low levels may be found in liver disease even in the absence of excessive peripheral utilization. An elevated complement is one of the manifestations of an acute inflammatory process; it behaves like an acute phase reactant. Thus, elevated, depressed, or normal complement levels are compatible with a diagnosis of PAN. Many patients will display rheumatoid factor, usually in low titer, but antinuclear antibody is seldom detected. Most will have immune complexes, but this may depend on the stage of the disease and sensitivity of the assay used. Immune complex determinations have not been useful clinically because levels correlate poorly with the course of the illness. They have little diagnostic value and may be found in many systemic illnesses, including most of the infectious and rheumatic disorders, which must be considered in the differential diagnosis of PAN. Cryoglobulins are present in a minority of patients. In hepatitis B-associated PAN, viral antigens may be detected in the cryoprecipitate.

Diagnosis

There was suspicion of polyarteritis in the patient because of severe abdominal pain not otherwise explained, associated with hepatitis B antigenemia. Under the circumstances, an angiogram was justified; it showed multiple small vessel aneurysms throughout the kidney. In 17 biopsy-proven cases of polyarteritis, Travers[8] showed that most of them had aneurysms; those who did not were likely to have arteriopathy consisting of variations in the caliber of vessels, such as constrictions, widenings, or occlusions; only 18% were normal. Angiography is, therefore, a fairly good diagnostic test, probably better than a blind muscle biopsy. If muscle in a clinically uninvolved area is biopsied in a case that is known on the basis of later developments to have polyarteritis, the yield will be about one positive out of four. If the muscle in a clinically involved area is biopsied, the yield will be about one out of two. By contrast, angiography has a yield of four out of five. Aneurysms may be found in the hepatic, renal, and mesenteric arterial systems in that order of frequency. Usually they are small. It should be noted that this finding is not specific for polyarteritis, although probably 90% or more of patients with microaneurysms will have the disease. An occasional example will be found in other systemic vasculitides such as systemic lupus and Kawasaki's disease. Angiography should be performed before renal biopsy, since the presence of aneurysms will increase the risk of bleeding associated with the procedure.

Lesions of the skin that may be encountered include tender subcutaneous nodules surrounded by an area of necrosis and hemorrhage, livedo reticularis (not specific, since it is found in various vasospastic states), purpura, necrotic lesions, hemorrhagic bullae progressing to ulcerations, nail fold hemorrhages, which are really little infarcts, frank gangrene in the fingers or toes, and large leg ulcers. Only a minority of patients have these characteristic skin lesions, but skin biopsy may be the least traumatic diagnostic procedure. Unfortunately, many of the lesions will show nonspecific inflammatory or necrotic changes.

Prognosis

Most patients with polyarteritis during the past 20 years have died of their disease. The cause of death was renal failure in about half the cases and impairment of other vital organs, including heart, brain and gastrointestinal tract in the other half.[7] Thus, the presence of renal disease implies a poor prognosis. Gastrointestinal disease is also a grave manifestation. The patient presented today was treated in the face of several unfavorable prognostic signs, including hypertension, and intestinal infarction, which was the immediate cause of death. Renal failure, however, possibly would have been the cause if he had not been treated with dialysis.

Therapy

Although the treatment in this case was unsuccessful, there are improved expectations for survival in this disease to which most patients in the past have succumbed. In the retrospective UCLA experience with therapy,[9] some patients were untreated; these tended to be older or milder cases. Only 13% survived over five years. Two treatment groups of patients, not strictly comparble, were given steroids alone, or steroids and immunosuppressive agents. The characteristics of the two groups were fairly similar in terms of the risk factors, organ involvement, and other variables. With steroids alone the five-year survival was 50% when immunosuppressive agents were added, survival at five years was 80%, an impressive improvement. This is more optimistic than most other reports. The immunosuppressive drug used most frequently in the study was azathioprine; it was added after a period of steroid therapy had not evoked a favorable response. About a third of the patients received other immunosuppressive drugs such as cyclophosphamide or chlorambucil. It is disturbing that a similar retrospective report from the Mayo Clinic revealed no improvement in survival with the addition of immunosuppressive drugs to steroid therapy.[10]

In patients with hepatitis B vasculitis, therapeutic exprience has the advantage of being recent, but it is quite meager.[1] It is difficult to conclude that results are better with immunosuppressives than with steroids alone. For instance, prednisone alone yielded seven good and six poor results; using prednisone with an added immunosuppressive drug, the corresponding numbers were five and four. We really do not have a solid basis at this time for recommending initial treatment with immunosuppressive drugs in addition to prednisone.

Today's patient received plasmapheresis; experience with this approach is limited and has largely been reported in abstract form. One such report[11] compared the results of plasma exchange in different kinds of vasculitis, rheumatoid vasculitis, hypersensitivity vasculitis, and polyarteritis. All of the patients had demonstrable circulating immune complexes. In every case plasmapheresis did reduce the plasma levels of the complexes, showing that the treatment was accomplishing the intended purpose, but the clinical results were mixed. With rheumatoid vasculitis they were fairly good, with consistent improvement in skin involvement and neuropathy. Patients with PAN, however, did not fare as well; two died, one was lost to follow-up, and one had questionable improvement. Results were most impressive in hypersensitivity vasculitis; all had rapid and dramatic improvement.

Plasmapheresis is a new modality. Perhaps we can justify further trials with it in PAN because of its relative safety and because the outcome without treatment or even with immunosuppressive therapy is relatively unfavorable. Perhaps earlier applications of this approach will improve the results. When vascular occlusion and aneurysms have already occurred, reversal of tissue injury is much less likely.

In summary, we have reason to be optimistic in dealing with PAN, a condition almost universally fatal several years ago. Angiography and demonstration of hepatitis B antigenemia enhance the opportunity for early diagnosis and, in many cases, may make successful therapy possible.

Editor's Note: The first of the present series of Medical Grand Rounds at the University of Tennessee was published in September 1975 in the *Journal of the Tennessee Medical Association* (68:709-714, 1975). The title was "Fever of Unknown Origin with Polyarteritis Nodosa." Dr. Gene H. Stollerman, then Chairman of the Department of Medicine, pointed out that PAN was an expression of an underlying immunologic phenomenon and not a disease entity causing fever. In the discussion, he presented his unified field theory of fever of unknown origin in which he presented the growing evidence of unrecognized infection as the cause not only of the immune complex diseases but also of cancer. The case presented above is one additional example of the role of an antigen (HBsAg) without clinical evidence of infection in generating polyarteritis nodosa. (C.E.K.)

(Continued on page 40)

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 56-year-old woman was admitted to St. Thomas Hospital for diverticulitis. She was on no medications and had no history of any previous medical problem. She was scheduled for a sigmoid-colectomy and an electrocardiogram was obtained as a routine preoperative tracing the day of admission (Fig. 1).

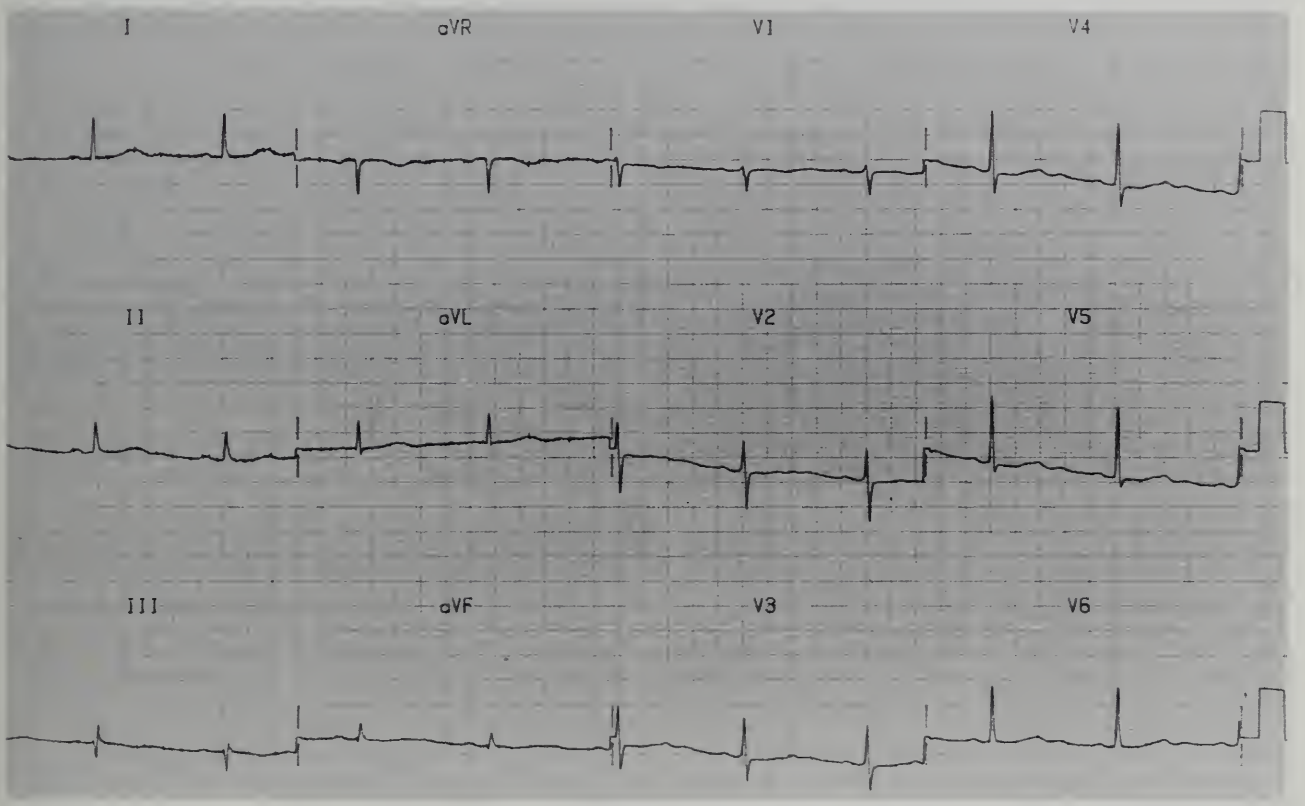


Figure 1

Discussion

The tracing shows regular sinus rhythm at a rate of 58/min. The PR interval is normal at 0.20 seconds. The QRS duration and configuration is normal, and the QT interval is prolonged at 0.5 seconds. There is a prominent U wave in leads V_1 through V_6.

Prolongation of the QT interval occurs in a variety of circumstances. Although the QT interval is customarily adjusted for heart rate[1] it has been pointed out that correction of the QT interval may be somewhat artificial. For example, the administration of adrenergic drugs has been shown to increase heart rate disproportionately to QT interval change.[2]

Although QT prolongation is known to be related to sudden death[3-5] and to ventricular arrhythmias such as torsade de pointes,[5] all QT prolongation may not be arrhythmogenic.[6]

QT prolongation may occur in a wide variety of circumstances. It is commonly seen with acute myocardial infarction and treatment with antiarrhythmic agents such as quinidine, procainamide, or disopyramide. It is precipitated by elec-

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

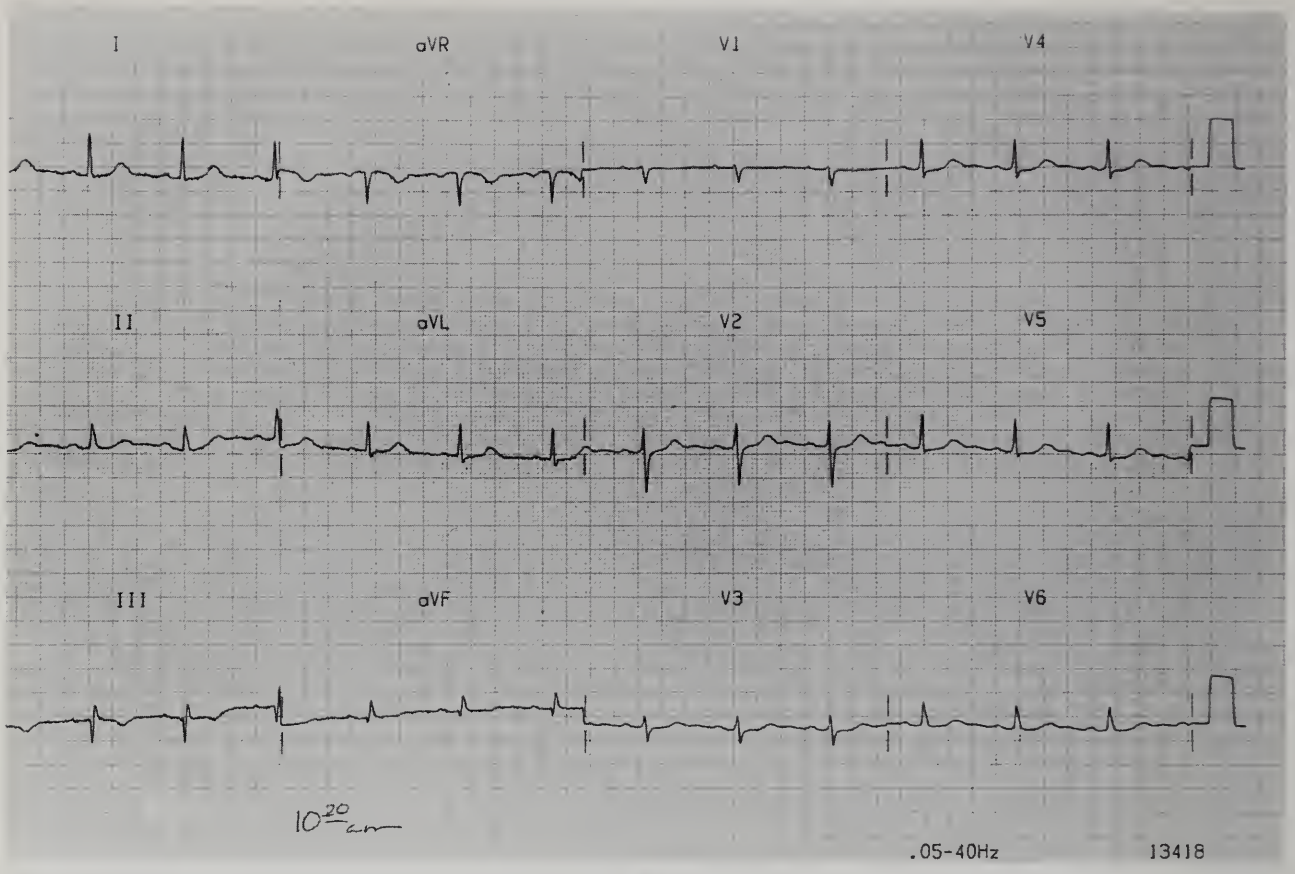


Figure 2

trolyte abnormalities such as hypocalcemia. Adrenal insufficiency has been associated with low T wave amplitude and prolonged QT interval,[7] and prolongation of the QTc interval is also common in patients with hypopituitarism and myxedema.[8] Hypothermia may produce QT prolongation with increase in T wave duration.[9]

The patient with this electrocardiogram had a serum potassium of 3.2 mEq/liter (normal 3.4 to 5.0 mEq/liter), and the calcium was 10.0 mg/dl. No other laboratory abnormalities were noted. Flattening of the T wave with progressive increase in U wave amplitude is characteristic of hypokalemia. Although the U wave becomes more prominent in hypokalemia, the QU interval is not altered by this condition.[10] It should be emphasized that hypokalemia alone has not been considered to cause an increase in the QT interval.[11]

This patient was given intravenous potassium chloride and elective sigmoid-colectomy was done without incident. Postoperatively the serum potassium was 3.9 mEq/liter. The electrocardiogram showed moderate shortening of the prolonged QT interval, with the T waves more prominent and the U waves somewhat diminished (Fig. 2). Does hypokalemia cause mild QT prolongation in some patients? Another etiology is not immediately apparent in this patient but data are lacking to answer this question.

CONCLUSIONS: (1) Prolonged QT interval, (2) decreased T amplitude and prominent U waves consistent with hypokalemia.

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Child Safety Program

MARY JANE DEWEY

The majority of our present-day health problems are directly related to life-style. This is especially true for children, who no longer die of infectious diseases as they did at the turn of the century. Recent health statistics indicate that trauma, such as suffocation and motor vehicle accidents, are among the leading causes of death and injury for the infant. No other preventable problem of life-style poses such a major threat as accidents, which in 1980 accounted for 35% of deaths in children 1 to 5 years of age in Tennessee. The key to preventing accidents is change in individual behavior, not better medical services. Changing individual behavior requires concerted effort between public and private providers through education of parents and providers of health care, media events to educate the public, and advocation of protective environmental changes, such as mandatory use of child-proof caps on medicine bottles.

Many deaths and injuries of infants and children can be avoided by the conscientious use of child restraints and seat belts in automobiles. Tennessee was the first state in the nation to require that children under age 4 ride in child restraint seats. A long, strategic campaign for legislative action, primarily spearheaded by pediatricians of Tennessee, led by Dr. Robert Sanders of the Rutherford County Health Department and Dr. Martha Bushore of Knoxville, resulted in the passage of the Child Passenger Protection Act of 1977. The original Act required that children under 4 years of age be restrained in a dynamically tested and federally approved child restraint device "unless held in the arms of a parent." In 1981 the "child crusher clause," as it came to be called, was repealed, thus increasing the protection of children in vehicles. With enforcement of the law, mortality has been cut in half, and usage rates of child restraint devices has increased from 9% to 32% statewide. Increased awareness will result in continued improvement.

In 1980 the Tennessee Department of Public Health assumed responsibility for developing the promotional program for child restraint usage. Through the Child Safety Program the Department provides child restraint seats through community based loan programs in 69 counties, and provides speakers, information, and materials for education and community awareness in these counties. The loan programs, usually managed by the county health departments, limit the length of time a family may use the seat and encourage the family to purchase its own for continuous use. Many different groups have worked to increase public awareness and establish loan programs in support of the law.

The pediatricians of the state have been and are still instrumental in encouraging and educating parents on restraint use. Social and civic groups in various communities have also been strong advocates for the use of restraints and have contributed countless volunteer hours of assistance for surveys, distribution of seats, and fund raising. The Tennessee Highway Patrol has a program in which each trooper's car is equipped with a child safety seat. The seat is issued to adults who are in violation of the law. When the seat is returned, if the adult shows proof of purchase of a child safety seat, court costs and fines are usually waived.

Child restraint loan programs and community education programs will be established in all counties of the state during 1982-1983. With this accomplished, the Child Safety Program will begin to expand its scope to address other safety issues affecting the lives of our children.

The six leading contributors to the death and injury of Tennessee children include suffocation and choking, fires, falls, drownings, poisonings, and firearm accidents. The majority of these injuries occur in the home or the immediate neighborhood. By effectively bringing these conditions

From the Tennessee Department of Public Health, Nashville.

to the awareness of the adults who rear and care for children we can reduce this risk.

Tap water scalds pose another major health problem that can be quickly and effectively addressed to reduce the injury rate. Reduction in hot water temperatures on hot water heaters from the typical 150° level to 130° will increase the time for receiving a scald burn from 2 seconds to 30 seconds. Education of homeowners, building code inspectors, and landlords could do much to reduce injury rate and save energy costs.

We are also concerned about the increased use of minibikes, and competition bike riding, such as moto-cross racing and off-the-road vehicles, by children between the ages of 8 and 16 because of the serious head injuries that result from accidents. Intervention would include the use of helmets and developing increased awareness of potential hazards by parents, guardians and caregivers.

The central office of the Child Safety Program serves as a contact point, and a resource center for materials and information for any interested Tennessean regarding child safety issues. The address is Child Safety Program, Tennessee Department of Public Health, R. S. Gass Building, Nashville, TN 37216. Telephone (615) 741-7262.

Medical Grand Rounds . . .

(Continued from page 34)

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Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism, other drug addiction, psychiatric disorders or senility. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

HELP US TO HELP

Call the TMA Impaired Physician Program (615) 327-2711; outside Nashville call collect. Phone service available around the clock.

The Diagnosis and Treatment of Reye's Syndrome

Reye's syndrome is a life-threatening illness that affects children of all ages, with a peak incidence between 5 and 15 years; on rare occasions it has been reported in adults. Although Reye's syndrome (encephalopathy with fatty degeneration of viscera) has been extensively investigated since the classic description of the disorder by Reye, Morgan, and Baral in 1963, the etiology and pathogenesis of this disease process remain obscure. The subcellular insult appears to affect mitochondria in multiple organ systems. Since prompt treatment may provide a better chance for complete recovery, early diagnosis is important.

Dissemination of information is recommended. This includes information on the early symptoms of Reye's syndrome, diagnostic criteria, and essential aspects of therapy. Such information should be distributed to parents, physicians, and nurses to facilitate early recognition, diagnosis, and treatment.

What are the key symptoms?

Reye's syndrome should be suspected in a child who, during or while recovering from a viral illness (most commonly chicken pox or influenza), unexpectedly develops repetitive vomiting and altered behavior such as lethargy, confusion, irritability, or aggressiveness. Neither fever nor jaundice is usually present. In children under 1 year of age, respiratory disturbances such as hyperventilation or apneic episodes may be prominent. In this special group (<1 year old) seizures occur more frequently than in older patients. All children with the above pattern of illness should receive prompt medical attention.

What are the laboratory findings in Reye's syndrome?

Helpful laboratory tests include the level of transaminases in serum, ammonia concentration in blood, and prothrombin activity. The activity of serum transaminases is at least three times upper normal limits, prothrombin time is usually prolonged, and blood ammonia concentration is usually elevated. Jaundice is conspicuously absent and bilirubin levels rarely are elevated. The concentration of glucose in blood is usually normal, especially in children 4 years of age and older. The cerebrospinal fluid (CSF) usually contains fewer than 8 cells per mm^3 and normal protein and glucose concentrations, except when there is concomitant hypoglycemia. Other recommended laboratory tests include determination of the concentration of glucose, calcium, and phosphorus in blood and of serum amylase activity. Serum should be analyzed for levels of salicylate and acetaminophen.

Where should a patient be treated?

It is most important that primary care practitioners be highly aware of Reye's syndrome and perform appropriate laboratory investigations promptly. Children with a history and laboratory findings suggestive of Reye's syndrome should be hospitalized for careful observation and receive glucose by intravenous infusion. Patients with stage II symptoms or worse should be cared for in a pediatric intensive care unit by a multidisciplinary team according to an established protocol, when available. (Stages in this paper refer to those described in Table 1.)

If the diagnosis of Reye's syndrome is made in a primary care setting, the physician should consult with colleagues in a pediatric intensive care center and discuss the timing of transfer. The transport team should be prepared to provide support for vital functions.

What are the currently used rating or classifying systems for measuring the severity of clinical symptoms? How useful are they?

A variety of staging systems based upon neurologic findings have been proposed for Reye's syndrome which have proven useful in assessing the severity of the illness, monitoring the effect of therapy, and predicting ultimate outcome. The multiplicity of staging systems, however, has been confusing for clinicians and researchers alike.

Should a uniform system be recommended for general use?

The panel reviewed a number of proposed staging systems and recommends the system outlined in Table 1 for future use in management and study of Reye's syndrome. Patients with high concentrations of ammo-

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A Consensus Development Conference was held at the National Institutes of Health on March 2-4, 1981, to address issues on the diagnostic criteria and treatment of Reye's syndrome.

The conference was sponsored by the National Institute of Neurological and Communicative Disorders and Stroke, and was consponsored by the National Institute of Allergy and Infectious Diseases; the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases; the National Institute of Environmental Health Sciences; the National Institute of Child Health and Human Development; and the Division of Research Resources. Collaborating agencies included the Centers for Disease Control and the National Center for Health Statistics. Assistance was provided by the Office for Medical Applications of Research, NIH.

A bibliography on Reye's syndrome and names of panel members are available from the Office for Medical Applications of Research, NIH, Building 1, Room 216, Bethesda, MD 20205.

TABLE 1
STAGING OF REYE'S SYNDROME

	I	II	III	IV	V
Level of Consciousness	Lethargy; Follows Verbal Commands	Combative/ Stupor; Verbalizes Inappropriately	Coma	Coma	Coma
Posture	Normal	Normal	Decorticate	Decerebrate	Flaccid
Response to Pain	Purposeful	Purposeful/ Nonpurposeful	Decorticate	Decerebrate	None
Pupillary Reaction	Brisk	Sluggish	Sluggish	Sluggish	None
Oculocephalic Reflex (Doll's Eyes)	Normal	Conjugate Deviation	Conjugate Deviation	Inconsistent or Absent	None

nia in blood early in the course of disease appear to have a less favorable prognosis.

When is a liver biopsy needed?

The diagnosis of Reye's syndrome can be made in most patients without a liver biopsy, a procedure not to be undertaken lightly in an uncooperative, critically ill child with defective coagulation. The results may confuse rather than inform unless the tissue is processed and interpreted by personnel in a center with special knowledge of the illness.

Nevertheless, a carefully planned biopsy, after correction of the coagulation abnormality, carried out by physicians experienced in performance and interpretation of the results of such biopsies, can provide important information in certain specific situations. Biopsy should be considered in infants, children with recurrent episodes, familial cases, and nonepidemic (sporadic) cases without antecedent infection or vomiting. Biopsy also increases the certainty of diagnosis and is important if a new and potentially dangerous therapeutic regimen is planned.

What other conditions may present with similar symptoms?

There is a lengthening list of illnesses that may be temporarily misidentified as Reye's syndrome. We now recognize that transaminase elevations may occur in children with varicella without Reye's syndrome and in shock or hypoxia due to a wide variety of illnesses. Intramuscular injections (especially of a commonly used antiemetic, chlorpromazine) and protracted seizures may increase levels of transaminases in serum in a variety of diseases which affect the central nervous system. Methyl bromide, hypoglycin (senecio alkaloid), isopropyl alcohol, folk remedies (pyrrolizidine and margosa oil), aflatoxin, lead, and toxicity from some drugs (e.g., aspirin, acetaminophen, and valproic acid) may produce disturbances of consciousness and elevation of serum transaminases.

When confronted by familial or recurrent occurrences of Reye-like illness, the physician should consider an inborn error of metabolism, especially systemic carnitine deficiency, glutaric acidemia, ornithine transcarbamylase deficiency, or hereditary fructose intolerance.

What special diagnostic tests are needed?

Computerized transaxial (CT) brain scanning is neither necessary nor indicated for diagnosing Reye's syndrome unless there is clinical suspicion of a disease other than Reye's syndrome, e.g., subdural hematoma, brain abscess, etc. Thus, CT scanning is not an integral part of the diagnostic evaluation of the child with Reye's syndrome. If, however, the test is done early in the course of illness, it will show a normal pattern or evidence of diffuse brain edema, with no displacement of ventricles or localized areas of enhancement.

The usefulness of electroencephalography (EEG) depends on the availability of appropriate equipment and individuals skilled in EEG interpretation. In general, the EEG has not proved to be helpful in following patients, determining prognosis, or altering treatment.

What have been the indications for intracranial pressure monitoring? What devices are available? What are the goals in reducing intracranial pressure and when can monitoring be stopped?

Since 1975, several reports have suggested that invasive monitoring of intracranial pressure may be useful in the management of children with Reye's syndrome. The devices in use can provide continuous measurement of pressure in the epidural, subarachnoid, or ventricular spaces. The difficulties inherent in assessing the usefulness of this procedure, employed to monitor rather than to treat, have produced conflicting opinions. Some physicians believe it improves their ability to manage patients, others do not. Mortality and morbidity directly attributable to monitoring devices appear to be low in the medical centers where they are used frequently. Data are inconclusive regarding criteria for discontinuation of such monitoring.

What are appropriate therapies in the noncomatose patient?

Therapy for stage I patients includes administration of dextrose-containing fluid. While there are no studies documenting that glucose administration in excess of that provided by 5% glucose solution at maintenance rate is definitely beneficial, a number of consid-

erations have prompted many clinicians to administer 10% dextrose solutions to these mildly affected children.

If neurologic deterioration occurs, the rate of fluid administration must be adjusted to maintain critical organ perfusion. Episodes of hypotension have been reported with maintenance rates of fluid administration following osmotic diuresis.

For many reasons, hemodynamic monitoring is important. Arterial catheters permit continuous blood pressure measurement and frequent arterial blood-gas sampling. Central venous catheters may provide useful data concerning blood volume and cardiac function, while pulmonary artery catheters (providing measurement of cardiac output) may be helpful in selected seriously ill children. While central venous catheters may be preferable in patients with normal cardiopulmonary function, the management of complicating cardiac dysfunction due to disease or drugs may make more complete monitoring necessary.

Intubation of patients with Reye's syndrome has received general acceptance, although there is disagreement as to what criteria are used to make the decision to intubate. There is agreement that intubation should be elective (i.e., prior to respiratory failure or cardiac arrest). It is most often prompted by deteriorating neurologic progression toward coma and is accomplished with intravenous succinylcholine and barbiturate.

What are the important metabolic derangements and are they amenable to treatment?

There are many documented metabolic derangements in Reye's syndrome, including hypoglycemia, hyperammonemia, hyperlactatemia, short chain fatty acidemia, hypophosphatemia, hyperaminoacidemia, azotemia, hyperuricemia, elevations of several hormones, and a mixed acid-base disorder. Acceptance of these well-documented findings and their relationship to the severity or treatment of the disease remains speculative. Although the degree of metabolic perturbation roughly parallels the severity of clinical illness, efforts (dialysis, amino acid infusion, phosphate and insulin infusions) to correct specific metabolic abnormalities have not clearly altered outcome.

Administration of vitamin K is generally accepted, although it is recognized that it is unlikely to correct fully clotting abnormalities. If significant bleeding occurs, exchange transfusion with fresh blood or administration of fresh frozen plasma may be helpful.

What are the therapies for increased intracranial pressure?

While the encephalopathy of Reye's syndrome is not always associated with increased intracranial pressure, such elevations frequently complicate the care of patients in coma. In lieu of specific treatment of the encephalopathy, much effort has been directed to the control of increased intracranial pressure. Measures commonly employed include osmotherapy and spontaneous or controlled hyperventilation. Experimental measures include high-dose barbiturates, corticosteroids, CSF withdrawal, and decompressive craniotomy. Use of newer techniques of monitoring and treating cerebral edema should be reserved for centers experienced in the diagnosis and management of children with severe neurologic disorders. To date, groups employing these experimental measures have failed to demonstrate better survival rates than those providing intensive supportive care.

What therapies are directed at removal of presumed toxins?

Exchange transfusion, dialysis, total body "washout," charcoal hemoperfusion, and plasmapheresis have all been suggested as potentially helpful by removing an unidentified toxic substance from patients with Reye's syndrome. There is no evidence that the use of these techniques improves outcome.

What are the residual findings?

Complete recovery may be expected in the majority of patients who survive the acute illness. However, some children who experience coma may suffer brain damage resulting in developmental delay, motor impairment, or mental retardation. Normal functioning in school may be delayed for some weeks. Children may be able to do the prescribed school work, but at a slower rate. Sometimes distractability, inattention, and memory problems occur.

Anxiety and apprehension associated with fear of bodily harm and death are frequently encountered in these children while hospitalized and following discharge from the hospital. Such fears can be helped by gentle parental support. Overprotectiveness of the child by the parents can accentuate behavioral or school problems and should be avoided.

Extensive psychological and educational testing appears to be unnecessary except in a study setting. Assisting school personnel in providing learning experiences geared to the individual needs of the recovering child may be required. Family guidance and counseling may be useful and are encouraged.

What are the areas of future research?

Potential areas of research include epidemiology, etiology, pathogenesis, diagnosis, management, and outcome. Most important is elucidation of the etiology and pathogenesis of this syndrome, with prevention as the ultimate goal.

Epidemiology

The low incidence of this disease results in small numbers of patients available for study at any single institution. The designation of a specific diagnostic code for Reye's syndrome in the International Classification of Diseases (10th Revision, Clinical Modification) would facilitate the determination of a more accurate incidence rate for Reye's syndrome.

Studies stratifying cases by age, sex, and race, by socioeconomic and environmental characteristics, and by geographic areas and location of residence (urban, suburban, rural) are needed to elucidate factors which may be important.

Etiology

Although the etiology of Reye's syndrome remains unknown, an association with a recent viral infection, especially influenza B and varicella, is well-established. However, the development of Reye's

syndrome following any of these viral infections is uncommon, and why only certain individuals develop the disease deserves further study. In addition, three recent population-based case-control studies have demonstrated an apparent association between salicylate usage and Reye's syndrome. Since the specific questions posed to the panel and discussed at the consensus conference were limited to diagnosis and treatment, the data on which this association is based were not presented but were discussed by several participants in the conference. Each of the three studies indicates an increase in the estimated relative risk of Reye's syndrome, which does not appear to be due to chance. However, other possible explanations of this association include the following: potential phases such as case-control selection (e.g., comparability of antecedent illness), information gathering (e.g., based on recall), and confounding (e.g., indications for salicylate use).

Parents and physicians should be aware that most, if not all, medications have potential deleterious effects; thus, caution in the use of salicylates in children with influenza and those with varicella is prudent. Currently, the risk of these effects is unknown for salicylates or for other antipyretic medications. Since salicylates have been given to children with illnesses predisposing to Reye's syndrome without adverse effect, and cases of Reye's syndrome have occurred in which salicylates had not been administered, salicylates alone cannot be responsible for the development of Reye's syndrome. However, certain similarities between salicylism and Reye's syndome and those studies reporting an association between Reye's syndrome and salicylate ingestion indicate a need for further carefully designed studies before recommending changes in antipyretic therapy of children.

The role of influenza and other viruses, aflatoxins, and genetic predispositions also deserve study.

Diagnosis

Although guidelines for the recognition of Reye's syndrome are generally accepted, information on the validity of the many proposed screening (clinical and laboratory) tests is incomplete and based on small numbers of patients or nonuniform diagnostic criteria. Particular attention should be given to documenting the sensitivity, specificity, and predictive values associated with various tests.

Management and Outcome

Critical and comparative evaluation of the treatment of Reye's syndrome can only proceed within the framework of a randomized controlled trial. A need exists for determining the best available monitoring procedures, seeking the most sensitive indicators of patient status while exposing the patient to the minimal risk. Evaluations of treatment and monitoring regimens require strictly defined protocols and a sample size necessary for statistical analysis.

Both the short- and long-term sequelae related to Reye's syndrome should be evaluated. Subtle effects on mental and motor capabilities should be evaluated using longitudinal data analysis. When possible, evaluations should be conducted without knowledge of the patient's treatment or monitoring regimens.



"LET'S PLAY DOCTOR. I'LL BE THE DOCTOR AND YOU BE THE MALE NURSE."

president's page



GEORGE W. HOLCOMB, JR.

Our Changing Times

In the thirty-odd years I have been practicing surgery, extraordinary changes have occurred. New diagnostic and surgical techniques have been introduced to radically improve our ability to care for patients. We have moved from using sulfa drugs to a wide choice of more effective antimicrobial agents. Routine radiologic examinations have been augmented by the marvels of ultrasound and CAT scans. Pediatricians and neonatologists have combined their efforts to improve the life expectancy of every newborn. We have advanced from reading EKGs and prescribing digitalis to coronary bypass surgery and heart transplants. Orthopedists have progressed from nailing hips to replacing them. Newer techniques and agents used by anesthesiologists have contributed greatly to the successful accomplishment of many newer surgical procedures. Physicians and the public have both benefited, applauded and quite often taken for granted these marvelous innovations.

Under the surface of these dramatic advancements in health care some other changes affecting the profession are of great concern. The alarming forays of the Federal Trade Commission into professional activities, although deplored, are a fact of life. The demands for wider competition between medical and non-medical personnel, physician advertising without regard for competency, and the downgrading of established ethics of our medical societies threaten our ability to maintain the highest standards of patient care.

In recent years we have been introduced to cost containment by the coercion of PSRO utilization review committees, coalitions, Medicaid limitations, HSAs and others not infrequently ignoring the quality of treatment which results. Nevertheless, physicians can and should become more cost conscious in requesting services from the laboratory, radiology department and the pharmacy. Our routine orders require close scrutiny and selective use. Surgeons also must change their habits and utilize one-day and outpatient surgical services more often, reduce wastes in operating rooms, and discharge hospitalized patients as soon as they can be cared for safely at home or in a less expensive unit. Cost conscious curricula should be established and promoted in our undergraduate and graduate training programs. Continued emphasis should be directed toward the vital role the public must assume in the development of intelligent health habits and the easing of family demands for unnecessary hospitalizations to contribute to the reduction of medical expenditures.

The severe malpractice crisis of the 1970s with rapid escalation of premiums and the disappearance of a number of insurance carriers is well known. Physicians in many states, including Tennessee, met this alarming situation by organizing independent self-owned insurance companies. As a result, not only are premiums less but insurance carriers are now returning to compete in this market. Although it is likely that premiums will increase some in the future we should support our own physician-owned company and not forget how vulnerable we would be if it were forced out of business. Informative seminars on patient safety and medical liability risks recently have been presented by the SVMIC across Tennessee. Any additional decrease in medical liability suits will come with our increased awareness of the need for (1) accurate nurses' orders; (2) establishing sound indications for surgery; (3) improved informed consent and spending time to explain procedures and risks; (4) being familiar with the hazards of diagnostic and surgical devices; (5) in general a development of more personalized service for patients. Legislative reform with limitation of court awards is greatly needed in this state. Our legislative representatives must be convinced that the financial burden of medical liability insurance should not continue to be borne entirely by physicians.

Other delicate issues changing our practice patterns which we must consider are related to the corporate practice of medicine by some hospitals, the continued assault on fee for service, the nursing shortage and related nurse-physician confrontation emerging in some areas, FMGs and licensure, the current physician glut, the need for adequate treatment for the uninsured and those unable to pay, and the inappropriate invasion into patient care by non-medical healers. These and other challenges to the traditional practice of medicine, as we have known in the past, undoubtedly will continue and must be faced with realistic intelligence. Only continued efforts of group action within the AMA, TMA and county medical societies will allow us to guard against and vigorously oppose any action of federal agencies to include by edict chiropractors, chiropodists, podiatrists, or optometrists in the same category as physicians for reimbursement or for any other reasons.

It is also evident that other alternatives will continually be offered for the practice of medicine such as IPAs, PPOs, HMOs, 7-11 emergency clinics and freestanding surgical centers. It is no longer sufficient for physicians just to maintain their continuing medical education programs and practice the best medicine possible. We must now involve ourselves in the professional and political activities of our Association as we seek solutions for improvement of patient care. But most importantly, and regardless of future challenges, we should strive continually to maintain our high standards, teach students and residents by example, and retain the professionalism and valued heritage established for medicine long ago by our forebears.

George Holcomb Jr MD

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JANUARY, 1983

editorials

Thoughts for a New Year

Have you ever watched a rivulet splashing its way merrily along to join a mountain stream? If you watch it long enough—say a lifetime—it will reshape the rocks over which it runs—barely.

One cold February day a few years back I stood breathless on the snow-spattered south rim of the Grand Canyon of the Colorado—breathless not because of the altitude, which is considerable, but because of the magnificence of the vista. Words fail. Even photographs fail. If a picture is worth a thousand words, the spectacle is worth a thousand pictures—and even then, justice could not be done. Some 4,000 feet below, the tiny silver thread of the Colorado River glistens in the sun—the tiny thread that is the mother of this colossus.

Have you ever watched an acetylene torch cut through a piece of steel? In a few short moments one of the hardest substances we have can be reduced to nothing by this white-hot flame.

One day not too long ago while flying over a western desert I peered out of the window to view, 35,000 feet below, a huge pockmark in the earth's skin, formed in an instant by the impact, they say, of a huge meteor that fell from the sky, formed by some monumental explosion in the galaxy, possibly when the Colorado River was a tiny rivulet tumbling down some mountainside in what is now Arizona.

Men of good will are divided on many things, among them the matter of how and when creation occurred (the creation being by definition, our universe). Some say it occurred virtually instantaneously only a few thousand years ago. Having watched man's acetylene torch, I could accept that as a possibility. Others say it took millions—even billions—of years. I could accept that, too. The God I believe in has more power than the acetylene torch—or even the sun itself—and also more patience than the rivulet that is now the Colorado River. I was not there when the Grand Canyon was formed, so I do not know how it happened. I do know it is incomparable.

Even those who know The Book are divided as to what it says. Some who know The Book say it says the earth was created in seven days. (Of course, since the sun and moon were not yet in place, how those days were measured escapes me.) Others who know The Book think it says otherwise. I think I know The Book and I think it does not say how long creation took, or how God did it. I also think the God who could make the Grand Canyon or the meteor crater could create the finished product however He pleased, either in an instant, or in ten billion years—which in any case is an instant to Him. (As The Book says, "A thousand years in thy sight are as yesterday when it is past, or as a watch in the night.") It is why I do not fret over the future.

I should like to leave a New Year's thought with you, in case you are vexed over such

things—or even if you are not. It is indeed a good thing to know The Book. But the best thing of all is to know its Author.

Happy New Year!

J.B.T.

Science, Technology, and the Art

Besides the run of the mill sci-fi films, so called, an occasional really well-conceived and executed production comes along that grips the attention of the viewer and fires the imagination of those that still have one. The latest of these is a touching excursion into the improbable called *E.T.*

Not only do sci-fi films grip the attention of those who like them; they also grip the attention of critics of the genre, who charge them with being stultifying, even anti-intellectual. Some also charge that they are demonic, but I do not propose to discuss that one, since I have no objective basis for answering a charge with no objective basis. In any case, this editorial is not a defense of the films.

As to the charge that they are anti-intellectual and beneath the attention of an intelligent adult, as well as a waste of time and money, I only answer that some people like sci-fi, some like football games, some like both—and some like neither. The maxim of *de gustibus* applies. Since films like *E.T.* do sometimes stimulate the mind, they need not be avoided simply as being anti-intellectual, assuming that every one of our pursuits needs to be intellectual, which I do not.

There might be grounds, though, for charging that *E.T.* is, of all things, anti-scientific, particularly in its closing moments, where it presents a sort of "worst case" situation. For those in spacecraft on the dark side of the moon, for example, who have neither seen nor heard about the film, E.T., short for extra-terrestrial, is, at least for all earthly purposes, killed by the super-technology of resuscitation (a "souped-up" version of the very real technology in use in the ordinary intensive care unit). While the scene would doubtless seem outlandish to the layman, anyone who has worked around an emergency room or ICU recently would instantly recognize it as a reasonable facsimile, even though exaggerated, of what goes on in them every day. As E.T. lies there, tubes in every portal, wired for sound and light, cardioversion having been tried and having failed, his friend Elliott cries out, "Oh, E.T.! What have they done to you? I'm so sorry. . . ." Only E.T.'s extra-terrestrial powers saved him from irreparable harm.

Although the film's ICU scene, and the whole film for that matter, is in a sense a parody, it is not so overdone that it should not give us pause for reflection. The film shows man at both his worst and his best, the former represented by a rather shadowy adult world, bent on advancing knowledge and technology at all costs, and the latter by the innocence of childhood. Though on first exposure the film gives the impression of being anti-science, it is in fact only anti-technology, made plain by the presence of the single scientist who is searching only for the truth, and that through observation alone. The point is subtly made, though, and easy to miss.

Since various elements of society have labeled physicians as scientists, and some of them consider scientists at best myopic and unfeeling, and at worst inhumane, it must be that we have at least in some measure earned it. The public remembers Love Canal and Three Mile Island—worse, it remembers Love Canal and Three Mile Island not as they really were (it has no way of knowing how they really were), but as they were parodied and exaggerated by the media. The danger is that viewers will remember the ICU as it was portrayed in *E.T.* and not as it really is.

Or is it?

When we need our technology, we need it badly, and fast. Medical research needs, for the benefit of all mankind, to continue unhampered. Because it is somehow suspect, though, it has fallen from grace in the public view, and is therefore presently underfunded. We physicians are indeed frequently indiscriminate and intemperate in the application of our technology, increasing medical costs unnecessarily, sometimes discomfiting rather than comforting and benefiting our patients. We are even accused, even sometimes by our peers, of using our complex testing methods and life support systems to cover ignorance and to satisfy our own egos and our need to *do* something—anything—in times of stress. Where there is smoke, there is bound to be fire. Unquestionably, man's inventiveness has outstripped his wisdom.

To temper with compassion, understanding, and wisdom our enthusiasm in our research and the application of our high technology is neither anti-scientific nor anti-intellectual. If we would

not have the public think otherwise of us, we need to keep firmly in mind—and act on it—that we serve neither science nor technology, nor medicine, either, but our patients. We need to make certain our research is really a search for truth; as we pull out all the stops, we need to consider the quality of the life we would preserve, remembering that prolongation of physical existence is not necessarily prolongation of life; it may be only meddlesome. Dials and oscilloscopes will not make the distinction. That does not come from medicine's science, but from its art.

J.B.T.

Oh, for the Joys of Yesteryear

It is a cool, sometimes drizzly Sunday afternoon in early October and I am sitting in front of an open window in the den enjoying the cool air and trying to do a little editorial work. I have accommodated to the noise of a power lawnmower running in the yard on either side, and my wife has finally left off suggesting that ours should be doing the same and has gone away and left me to my work. Suddenly a chain saw begins to chatter in the yard behind us. It is too much. What's a man to do? I could go to my nice quiet office and work in air-conditioned silence, but it's a dreadful imposition for a man not to be able to enjoy the quiet of his own home, and the nice fresh October air (gradually becoming polluted by burning fossil fuels) on a Sunday afternoon. Progress be damned!

I can still remember my mother, who died at 86 with most of her teeth, holding an ice pack to an almost unbearably painful, massively swollen jaw as for days on end she nursed an abscessed tooth. About a week ago a large piece of one of my teeth broke off, necessitating a root canal, which became infected. Like my mother's, my jaw swelled, and hurt, and my temperature rose. Unlike hers, though, after drainage was established by my friendly dentist, and after a day of erythromycin, the swelling in mine rapidly receded, and with a little Tylenol 3 to help me over the hump, in a couple of days I felt like a new man (or at least no worse than the same old one). Of course, my tooth has a way to go, but—

I picture the Indian chief, or even lesser mortals, lolling about beside a cool stream, perhaps fishing in it, on a bright (or even drizzly) October afternoon—not even Sunday, since he didn't live the hurried existence requiring that he distinguish between days. It seems, on superficial examination, to have been *the life,* before the white man imposed his burden on the noble savage.

Have you ever spent any of your quiet Sunday afternoons in museums of natural history? I have—a lot of them. If you have, did you ever notice the teeth (those few remaining ones) in the Indian skulls they have lying around? I guess, if I must choose (considering I might ever be able to make such a choice) between the joys of a quiet Sunday afternoon and the joys of antibiotics, there really is no choice.

The good old days obviously had their moments—but only just!

J.B.T.

in memoriam

Isaac Hooper Jones, age 81. Died August 28, 1982. Graduate of University of Tennessee College of Medicine. Member of Henry County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BEDFORD COUNTY MEDICAL SOCIETY
Danny Lee Melson, M.D., Shelbyville

BRADLEY COUNTY MEDICAL SOCIETY
William D. Bowers, M.D., Cleveland

BUFFALO RIVER VALLEY MEDICAL SOCIETY
Rebecca C. McGee, M.D., Centerville

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE
Floyd Reed, Jr., M.D., Trenton

GILES COUNTY MEDICAL SOCIETY
Charles D. Haney, M.D., Pulaski

JACKSON COUNTY MEDICAL SOCIETY
Leroy F. Barden, III, M.D., Gainesboro

LAKEWAY MEDICAL SOCIETY
Robert Allen Jamison, M.D., Morristown

LINCOLN COUNTY MEDICAL SOCIETY
William W. Daniel, M.D., Fayetteville

SEVIER COUNTY MEDICAL SOCIETY
John W. Minchey, M.D., Pigeon Forge

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION
Paul Thur de Koos, M.D., Johnson City

WILLIAMSON COUNTY MEDICAL SOCIETY
Howard Alan Seitzman, M.D., Franklin

personal news

William Powell Hutcherson, M.D., Chattanooga, has been elected to a three-year term as chairman of District VII of the American College of Obstetricians and Gynecologists.

John B. Lynch, M.D., Nashville, has been elected president-elect of the American Society of Plastic and Reconstructive Surgeons for 1982-1983.

B. F. Overholt, M.D., Knoxville, has been appointed to a three-year term to the Gastrointestinal Drug Advisory Committee of the Federal Food, Drug and Cosmetic Act.

Sam P. Patterson, M.D., Memphis, has been installed as president of the Central Association of Obstetricians and Gynecologists.

Robert C. Reeder, M.D., Memphis, has been elected to a second term as treasurer of the American Society of Plastic and Reconstructive Surgeons.

Francisco Vallejo, M.D., Tullahoma, has been named Kiwanian of the Year by the Highland Rim Kiwanis Club.

John O. Williams, M.D., Mt. Pleasant, has been named Family Physician of the Year by the Tennessee Academy of Family Physicians in recognition of "dedication to the practice of medicine, devotion to patients and furtherance of family medicine."

The following TMA members have been certified as Diplomates of the American Board of Family Practice: *John D. Crawford, M.D.*, Collierville; *Ronald Clyde Tillman, M.D.*, Alamo.

The following TMA members have been named Fellows of the American Academy of Family Physicians: *James M. Baldwin, M.D.*, Ashland City; *Charles A. Ball, M.D.*, Mt. Pleasant; *Charles Leonard, M.D.*, Jefferson City; *Marsha B. Moore, M.D.*, Selmer; *Thomas A. Smith, M.D.*, Winchester; *James VanBlaricum, M.D.*, Winchester.

TMA Members Receive AMA Physician's Recognition Award

Nineteen TMA members qualified for the AMA Physician's Recognition Award during October 1982.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

William T. Aldrich, M.D., Cleveland
Lonnie R. Boaz, M.D., Chattanooga
H. Victor Braren, M.D., Nashville
Robert E. Burr, M.D., Madison
James W. Giles, M.D., LaFollette
Rodger C. Haggitt, M.D., Memphis
Don C. Harting, M.D., Cleveland
Claude C. Haws, M.D., Johnson City
Mohammed Ismail, M.D., Nashville
Hal P. James, M.D., Memphis
William L. Northern, Jr., M.D., Memphis
C. Gordon Peerman, Jr., M.D., Nashville
William E. Rowe, M.D., Chattanooga
Jones F. Rutledge, M.D., Lewisburg
Harriet L. Schroeder, M.D., Memphis
Dillard M. Sholes, Jr., M.D., Johnson City
Gary D. Swanson, M.D., Nashville
Clarence S. Thomas, M.D., Nashville
Dana J. Wright, M.D., Memphis

announcements

CALENDAR OF MEETINGS

NATIONAL

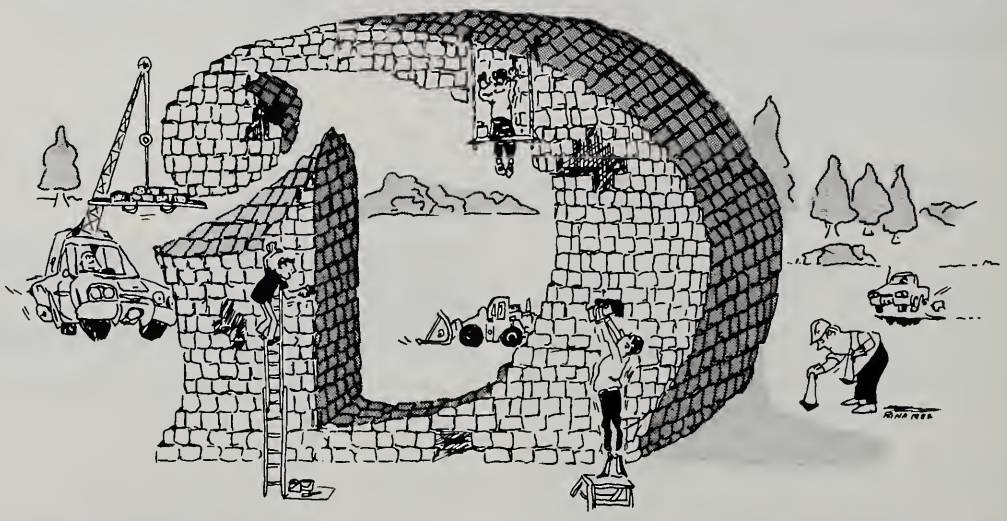
Feb. 9-14	Multidisciplinary Microsurgery at the Mardi Gras Symposium (sponsored by Southern Baptist Hospital)—New Orleans.
Feb. 11-13	Society of University Surgeons—Sheraton Hotel, Oklahoma City.
Feb. 12-19	Winter Symposium on Hematologic Malignancies (sponsored by Univ. of Arizona Cancer Center, Tucson)—Snowbird, Utah.
Feb. 13-18	Sports Medicine Symposium for Family Practitioners (sponsored by Cleveland Clinic and Univ. of Vermont)—Sugarbush, Vt.
Feb. 16-19	International Conference of the Association

	for Children and Adults with Learning Disabilities—Hilton Hotel, Washington, D.C.
Feb. 16-20	American College of Psychiatrists—Hilton Hotel, New Orleans.
Feb. 23-March 1	Adolescent/Young Adult Medicine (sponsored by Hurley Medical Center, Flint, Mich.)—Wailea Beach Hotel, Maui, Hawaii.
Feb. 28-March 4	International Academy of Pathology, US-Canadian Division—Hilton Hotel, Atlanta.
March 4-6	American Medical Student Association—Bond Court Hotel, Cleveland
March 5-12	American Society of Contemporary Ophthalmology and American Society of Contemporary Medicine and Surgery—Sheraton Bal Harbour Hotel, Bal Harbour, Fla.
March 5-12	Canadian American Medical Dental Association—The Lodge, Vail, Colo.
March 6-10	Society of Toxicology—Caesar's Palace, Las Vegas
March 6-11	American Society of Microbiology—New Orleans
March 9-11	American Society for Clinical Pharmacology and Therapeutics—Town & Country, San Diego
March 9-13	American College of Nuclear Physicians—Cerromar Beach Hotel, Puerto Rico
March 10-13	American Society for Head & Neck Surgery—Canyon, Palm Springs, Nev.
March 10-15	American Academy of Orthopedic Surgeons—Convention Center, Anaheim, Calif.
March 13-18	Mammoth Mountain Emergency Medicine Ski Conference (sponsored by Medical Conferences, Inc.)—Mammoth Lakes, Calif.
March 14-18	Midwinter Diagnostic Radiology Conference (sponsored by Loyola Univ. of Chicago)—Kapalua Bay Hotel, Maui, Hawaii
March 16	Association for the Advancement of Psychoanalysis—International Center, New York City
March 19-22	American Society of Abdominal Surgeons—National Study Center for CME, Tampa, Fla.
March 19-23	American Academy of Allergy—Diplomat Hotel, Hollywood, Fla.
March 20-24	American College of Cardiology—New Orleans
March 20-25	Association of University·Radiologists—Hilton Hotel, Mobile, Ala.
March 23-24	Association for the Care of Asthma—Diplomat Hotel, Hollywood, Fla.
March 24-27	American Psychosomatic Society—Barbizon Plaza, New York City
March 24-27	American Society of Regional Anesthesia—Contemporary, Lake Buena Vista, Fla.

STATE

April 13-16	Tennessee Medical Association 148th Annual Meeting—Opryland Hotel, Nashville

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TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Feb. 25	Annual L. W. Edwards Lecture in Surgery (1 hour)
March 4-6	Benjamin Howard Robbins Memorial Lecture—Anesthesia Update
March 18	Pain Management Conference (7 hours)
March 28-April 1	Annual James C. Overall Visiting Professor in Pediatrics
April 7	Annual Frank H. Luton Lecture in Psychiatry (1 hour)
April 9	Scientific Sessions, Tennessee Chapter, American Diabetes Association (7 hours)
April 22-23	Update in Gynecological Oncology and the Conrad Julian Memorial Lecture in Gynecologic Oncology (10 hours)
April 29-30	Annual Barney Brooks Lecture in Surgery and H. William Scott Society, Scientific Sessions
May 18-19	Annual Seminar in Psychiatry (10 hours)
May 19-21	Diagnostic Sonography Update: 1983 (20 hours)
Spring	Treatment of Depression, for nonpsychiatrists (7 hours)
June 4-5	Ophthalmology Residents Day
June 9-10	Controversies in Cardiology: 1983—Annual Scientific Sessions, Tennessee Heart Association (10 hours)
July 7-9	Vanderbilt/Bowman-Gray Fifth Annual Mountain Meeting, Internal Medicine—Asheville, N.C. (12 hours)
July 19-23	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1). AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

	Memphis
March 3-5	Pituitary Disorders (cosponsored with Baptist Hospital)
March 20-26	16th Annual Family Practice Review Course

For further information about any of these courses, please call the appropriate individuals below:

Memphis	Ms. Jean Taylor	Tel. (901) 528-5547
Chattanooga	Ms. Jeanne Schmid	Tel. (615) 756-3370
Knoxville	Ms. Kay Laurent	Tel. (615) 971-3345

or write or telephone: James E. Farris, Ed.D., Assistant Dean for CME, University of Tennessee College of Medicine, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5530.

EAST TENNESSEE STATE UNIVERSITY

Feb. 24	School Health V: Children's Problems with Schools

For information contact Department of Continuing Medical Education, Box 19660A, Quillen-Dishner College of Medicine, East Tennessee State University, Johnson City, TN 37614, Tel. (615) 928-6426, ext. 201 or 204.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

March 3-4	Pituitary-Brain (co-sponsored with University of Tennessee)
March 10-12	Practice Pertinent Psychiatry for the Primary Care Physician (co-sponsored with University of Tennessee)
March 18	Colorectal Cancer (co-sponsored with Sloan-Kettering Cancer Center)
April 7-9	Gynecological Surgery
April 21-22	Spiritual Aspects of Suffering and Pain
May 5-6	Nutritional Support
May 19-20	Infectious Diseases for the Clinician
May 21	Nuclear Medicine
May 27-29	Anesthesia Update
Sept. 30-Oct. 1	Pulmonary Update
Oct. 3-4	Recent Advances in Cardiovascular Surgery
Oct. 27-28	Liver Disease—From Prevention to Transplantation (co-sponsored with the University of Tennessee)

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

IN SURROUNDING STATES

UNIVERSITY OF MISSISSIPPI

March 10-12	10th Annual Surgical Forum—Holiday Inn Downtown, Jackson, Miss. *Credit:* 22 hours AMA Category 1. *Fee:* $275.

For information contact Continuing Education, University of Mississippi Medical Center, 2500 N. State St., Jackson, MS 39216.

OF SPECIAL INTEREST

KNOXVILLE ACADEMY OF MEDICINE

Feb. 5-12	4th Annual Knoxville Academy of Medicine Educational Ski Trip—Snowmass, Colo.

For information contact I. Ray King, M.D., 939 Emerald Ave., Knoxville, TN 37917, Tel. (615) 546-5335.

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Rural Distribution of Physicians In Tennessee

WALTER W. DIGGS, FACHA

There are state, regional, and national reports suggesting that geographic and specialty changes are taking place in the distribution of physicians in Tennessee. Recent studies by Schwartz[1] and Newhouse,[2] which included Tennessee in the samples, indicate that between 1960 and 1977 board certified specialists appeared for the first time in many small non-metropolitan towns; that movement to smaller communities of internists, surgeons, pediatricians, obstetricians/gynecologists and radiologists—the five largest specialties—was particularly striking; and that the increased supply of specialists activated market forces that caused the change in distribution in non-metropolitan areas, suggesting that even smaller towns will acquire board certified specialists as the number of specialists increases.

A comparison of Schwartz's 1977 data with more recent Tennessee data from the *Directory of Medical Specialists,* the AMA *American Medical Directory,* and the Tennessee *Directory of Doctors of Medicine* supports Schwartz's findings and indicates that the geographic and specialty trends are continuing.

The Schwartz methodology included identifying non-SMSA (Standard Metropolitan Statistical Area) towns of 2,500 population or more. Of Tennessee's 95 counties, 23 are currently located in six Tennessee SMSAs. Fifty-eight non-SMSA towns in Tennessee have populations of 2,500 or more.

In an effort to further review the changes described by Schwartz, several additional comparisons were made regarding the change in physician distribution between 1979 and 1982, economic factors, and the percentage of non-metropolitan towns in Tennessee having medical specialists.

Primary physicians included in the study were those in family and general practice, internal medicine, obstetrics/gynecology, and pediatrics as listed in the Tennessee *Directory of Doctors of Medicine.*[3] Excluded, except when noted from the physician tabulation, were resident, part-time, activity status unknown, and specified specialty physicians.

Table 1 illustrates the comparison of 1979 and 1980, using the Schwartz methodology and the Tennessee *Directory of Doctors of Medicine.*[3]

TABLE 1

NUMBER OF PRIMARY, GENERAL SURGERY AND RADIOLOGY PHYSICIANS IN NON-METROPOLITAN TOWNS IN TENNESSEE[3]

Population	No. of Towns	1979	1980	% Increase
2,500-5,000	26	138	147	7
5,000-10,000	18	154	177	15
10,000-20,000	10	175	187	7
20,000-30,000	3	78	96	23
30,000-50,000	1	52	64	23
TOTAL	58	597	671	12

From the University of Tennessee Center for the Health Sciences, Memphis. Mr. Diggs is assistant dean of the College of Community and Allied Health Professions.

Reprint requests to College of Community and Allied Health Professions, 800 Madison Ave., Memphis, TN 38163 (Mr. Diggs).

Table 2 indicates a 16% increase in primary care physicians between 1979 and 1980 in non-SMSA towns and is consistent with Schwartz's findings. The most significant increases have been in obstetrics/gynecology, internal medicine, and family practice. Obstetrics/gynecology increases were in Jackson, Cleveland, and Columbia, while internal medicine specialists significantly increased in Jackson, Cleveland, and Crossville. The number of family practice physicians increased in Brownsville, Harriman, Milan, Rockwood, and Winchester.

Of the 661 primary physicians located in the 72 non-SMSA counties in 1980, 516 (78%) were located in the 58 towns of 2,500 to 50,000 population. Sixty-four percent of the primary physicians in 1980 in non-metropolitan towns were family practice or general practice physicians.

Table 3 identifies the distribution by Health Systems Agency (HSA) of specialists using the Schwartz methodology. Eight (15%) of the non-SMSA cities of 2,500 to 20,000 population were served by internal medicine, general surgery, pediatrics, and obstetrics/gynecology specialists.

Table 4 compares the relative increase in medical specialists between 1979 and 1980 for rural and urban areas. Primary physicians increased 16% in non-SMSA towns and 20% in the five metropolitan counties in one year!

Table 5 compares the 1979 national finding of Newhouse et al[2] with comparable Tennessee data from the *American Medical Directory* for 1979 and 1982.[4]

An analysis of non-SMSA towns using the 1979 and 1982 AMD[4] suggests the following:

- *Towns 2,500 to 5,000 Population.* None of the 26 towns had all four primary care specialists (family/general practice, internal medicine, obstetrics/gynecology, and pediatrics). Ripley and Carthage are examples of family/general practice dominated communities. Camden, Loudon, Sevierville, Sweetwater, and Waverly had four or more medical specialists, Sevierville having the greatest increase in specialists between 1979 and 1982. Forty-two percent of the communities had internal medicine specialists in 1982, twice the national average reported by Newhouse using 1979 data (Table 5). Internal medicine showed the greatest percentage increase from 1979 to 1982, increasing from 6 to 11 physicians.
- *Towns of 5,000 to 10,000 Population.* Of these 18 towns, Crossville and Winchester were the most specialized. Brownsville, Lenoir City, Lewisburg, Winchester, and Milan had the least degree of medical specialization. Lawrenceburg had the greatest increase in specialists, from three to six, between 1979 and 1982.

TABLE 2

NUMBER OF PHYSICIANS IN NON-METROPOLITAN TOWNS WITH POPULATION OF 2,500 OR MORE IN TENNESSEE[3]

Specialty	1979	1980	% Increase
Primary Care			
Internal Medicine	65	89	37
Pediatrics	44	44	0
Obstetrics/Gynecology	37	54	46
Family Practice/General Practice	297	329	11
TOTAL	443	516	16
General Surgery	107	109	2
Radiology	47	46	(2)
TOTAL	597	671	12

TABLE 3

PERCENT OF NON-METROPOLITAN TOWNS IN TENNESSEE WITH POPULATION OF MORE THAN 2,500 WITH MEDICAL SPECIALISTS—1980[3]

HSA Service Area	No. of Towns	IM	GS	PD	OBG	R	FP/GP
1	1	100	100	100	100	100	100
2	13	23	85	23	23	46	100
3	4	50	75	75	50	50	100
4	21	57	86	38	29	52	100
5	18	56	83	28	44	39	94
6	1	100	0	0	0	0	100
TOTALS/ Average	58	50	81	34	34	45	98

TABLE 4

PERCENT INCREASE IN MEDICAL SPECIALISTS 1979-1980[3]

Specialty	Non-Metropolitan Towns (58)	Metropolitan Counties (5)
Primary Care		
Internal Medicine	37	28
Pediatrics	0	17
Obstetrics/Gynecology	46	12
Family Practice/General Practice	11	18
AVERAGE	16	20
Surgery	2	15
Radiology	(2)	18

TABLE 5

PERCENT OF TENNESSEE NON-SMSA COMMUNITIES WITH PHYSICIAN SPECIALTY SERVICES[4]

	Population in Thousands		
	2,500-5,000	5,000-10,000	10,000-20,000
General and Family Practice			
1979 National (Newhouse)	86	96	99
1979 Tennessee AMD	96	100	100
1982 Tennessee AMD	96	100	100
Internal Medicine			
1979 National	23	52	84
1979 Tennessee AMD	23	56	80
1982 Tennessee AMD	42	67	70
General Surgery			
1979 National	44	77	96
1979 Tennessee AMD	54	94	90
1982 Tennessee AMD	58	89	90
Obstetrics Gynecology			
1979 National	15	35	77
1979 Tennessee AMD	12	17	90
1982 Tennessee AMD	15	28	90
Pediatrics			
1979 National	12	25	68
1979 Tennessee AMD	12	28	60
1982 Tennessee AMD	15	28	80
Psychiatry			
1979 National	9	17	40
1979 Tennessee AMD	0	17	40
1982 Tennessee AMD	0	11	30
Radiology			
1979 National	9	30	73
1979 Tennessee AMD	15	33	70
1982 Tennessee AMD	15	44	80
Anesthesia			
1979 National	11	19	40
1979 Tennessee AMD	4	0	10
1982 Tennessee AMD	0	6	0
Orthopedics			
1979 National	7	17	47
1979 Tennessee AMD	0	0	50
1982 Tennessee AMD	4	11	70
Ophthalmology			
1979 National	4	14	62
1979 Tennessee AMD	4	11	60
1982 Tennessee AMD	4	17	80
Pathology			
1979 National	4	15	50
1979 Tennessee AMD	0	11	50
1982 Tennessee AMD	0	22	40
Emergency Medicine			
1979 Tennessee AMD	4	6	30
1982 Tennessee AMD	0	6	30

In four towns (Bolivar, Fayetteville, Lewisburg, and Humboldt) the number of physicians decreased between 1979 and 1982 and five (Milan, Newport, Pulaski, Savannah, and Winchester) had increases of 50% or more.

• *Towns of 10,000 to 20,000 Population.* Six of these ten towns had all four primary care specialists.

Table 5 suggests that the supply of general surgeons and radiologists in towns of 2,500 to 10,000 is greater in Tennessee than national averages, whereas the supply of anesthesiologists in non-SMSA towns of 2,500 to 20,000 is less than national averages and the distribution of obstetrics/gynecology specialists in towns of 10,000 to 20,000 is greater than national averages. The availability of internal medicine in towns of 20,000 is greater than the national averages. The availability of internal medicine in towns of 2,500 to 5,000 is twice that of national averages.

Tables 6, 7, and 8 review trends in Middle Tennessee based on data on Tennessee licensure. Table 6 relates to non-SMSA towns using the Schwartz methodology. Five cities (Columbia, Cookeville, McMinnville, Tullahoma, and Winchester) had internal medicine, general surgery, pediatrics, and obstetrics/gynecology specialists.

Significant increases occurred between 1979 and 1980 in internal medicine in Cookeville and Crossville, obstetrics/gynecology in Columbia and Tullahoma, and family practice/general practice in Tullahoma and Winchester.

Table 7 illustrates the distribution of specialists in 11 SMSA cities. Five cities (Clarksville, Franklin, Lebanon, Murfreesboro, and Hendersonville) have internal medicine, general surgery, pediatrics, and obstetrics/gynecology specialists. Significant increases occurred between 1979 and 1980 in internal medicine in Clarksville, Gallatin, and Lebanon, in general surgery in Clarksville and Murfreesboro, in pediatrics in Dickson and Lebanon, obstetrics/gynecology in Gallatin and Hendersonville, radiology in Gallatin, and family practice/general practice in Portland and Springfield.

Table 8 compares the increases between SMSA and non-SMSA towns. In HSA Region 4 (Middle Tennessee) the number of primary medical specialists increased (1970-1980) 20% in non-metropolitan cities of 2,500 population or more, and 24% in SMSA towns outside Davidson County.

Tables 9 and 10 compare the distribution of physicians according to economic and population density variables. Table 9 suggests that in 1980 physicians were more likely to be located in rural

TABLE 6

NUMBER OF MEDICAL SPECIALISTS HSA REGION 4—MIDDLE TENNESSEE—NON-METROPOLITAN TOWNS[3]

Specialty	1979	1980	% Increase
Primary Care			
Internal Medicine	18	26	44
Pediatrics	11	12	9
Obstetrics Gynecology	10	16	60
Family Practice/General Practice	100	124	14
TOTAL	148	178	20
General Surgery	42	41	(2)
Radiology	17	16	(6)

TABLE 7

NUMBER OF MEDICAL SPECIALISTS HSA REGION 4—MIDDLE TENNESSEE—11 SMSA CITIES*[3]

Specialty	1979	1980	% Increase
Primary Care			
Internal Medicine	24	32	33
Pediatrics	21	26	24
Obstetrics Gynecology	17	22	30
Family Practice General Practice	50	59	18
TOTAL	112	139	24
General Surgery	29	35	21
Radiology	10	16	60

*Eight SMSA counties excluding Davidson.

TABLE 8

PERCENT INCREASE IN MEDICAL SPECIALISTS HSA REGION 4—MIDDLE TENNESSEE—1979-1980

Specialty	11 SMSA Towns	21 Non-SMSA Towns
Primary Care		
Internal Medicine	33	44
Pediatrics	24	9
Obstetrics/Gynecology	30	60
Family Practice/General Practice	18	14
AVERAGE	24	20
General Surgery	21	(2)
Radiology	60	(6)

TABLE 9

NON-SMSA TENNESSEE COUNTIES

	No. of Counties	1980 Population	Primary Physicians	Primary Physician: Population Ratio
Less 20% poverty and/or more than $4,000 per capita	22	740,112	339	1:2183
20%-30% poverty and $3,000-$4,000 per capita	27	561,254	200	1:2806
More than 30% poverty and/or less than $3,000 per capita	23	390,361	122	1:3200
TOTAL	72	1,691,727	661	1:2559

counties with more affluent citizens, and less likely to be located in poorer counties with low per capita income and a high percentage of poverty population.

The question of economic factors in physician distribution was reviewed using data from the 1980 census, medical licensure, and the 1977 *Tennessee Statistical Abstract.*[5] The 72 non-SMSA counties were separated into three groups based on per capita income and percent poverty population.

The likelihood in 1980 of primary care physicians locating in non-urban counties was greater for counties with a population density of more than 30 people per square mile than for counties with less than 30 people per square mile (Table 10). The variable of population density is more significant than per capita income/poverty in identifying counties with a high population:physician ratio. This is consistent with Inscho's findings in 1976.[6]

Table 11 compares data from the 1979 *Directory of Medical Specialists* with licensure.[7] More than 50% of the physicians in rural towns are board certified. This ranged from 39% in family/general practice to 85% of internists.

Table 12 summarizes the percent increase of primary physicians in non-SMSA counties between 1979 and 1980. These specialties have had an impact in the ten non-SMSA towns of 10,000 to 20,000 population. Family practice has had the greatest impact in towns of 5,000 to 10,000 population.

The University of Tennessee graduates in 1982 (Table 13) represent 58% of the physicians practicing in non-SMSA communities of 2,500 to 50,000 population as compared with 33% from other U.S. medical schools, 2% from Canada, and 7% from foreign medical schools (FMG). Seventy-eight percent (708 of 844) were involved in 1979 in direct patient care (AMD 1979-code 20). The net increase of 129 physicians in rural non-SMSA communities between 1979 and 1982 was 15%, 17% in towns of 2,500 to 20,000, and

TABLE 10

NON-SMSA TENNESSEE COUNTIES

Population Density per Square Mile	No. of Counties	Population	Primary Physicians	Primary Physician: Population Ratio 1980
> 50	21	838,700	367	1:2285
40-50	15	336,107	134	1:2508
30-40	15	300,132	111	1:2704
< 30	21	216,788	49	1:4424
TOTAL	72	1,691,727	661	1:2559

TABLE 11

COMPARISON OF TENNESSEE LICENSED PHYSICIANS WITH BOARD CERTIFIED SPECIALISTS IN 58 NON-SMSA TOWNS OF 2,500-50,000 POPULATION

Specialty	Directory of Medical Specialists 1979[7]	Licensed Physicians 1979[3]	% Board Certified
Primary Care			
Internal Medicine	55	65	85
Pediatrics	28	44	64
Obstetrics/Gynecology	25	37	68
Family Practice/General Practice	116	297	39
TOTAL	224	443	39
General Surgery	70	107	65
Radiology	30	47	64

12% in the four towns of 20,000 to 50,000 population.

The advancing age of primary care physicians in Tennessee is an area of concern. More than one-third of the general practitioners trained during and after World War II are 50 years of age and older, and will be retiring or limiting their practices over the next several years. This could have a serious impact on rural communities unless they are replaced by family physicians or other primary care specialists.

Forty-seven, or half, of Tennessee's 95 counties are considered primary care shortage areas according to 1982 federal guidelines.[8] Seven SMSA counties are considered shortage areas. The counties with the greatest shortages are Cocke, Decatur, Grainger, Macon, Meigs, Morgan, Polk, Stewart, and Union.

It is interesting to note that the medical indigent populations of Davidson and Hamilton counties are considered primary care shortage areas, but in Shelby County they are not.

In 1979 there were 15 towns of less than 2,500 population having board certified specialists but no hospital. An additional 19 towns of less than 2,500 population had hospitals totaling 904 beds and 78 physicians, 19 of whom were board certified.

In 1981 there were 55 full-time osteopathic physicians in Tennessee.[9] Less than half (24) are located in non-SMSA communities. They are located in 14 counties; six are in Gibson and three in Grundy.

Summary

Fifty-eight percent of the practicing physicians in non-SMSA communities in 1982 were graduates of the University of Tennessee College of Medicine.

The increase in family practice physicians was greatest in communities of 5,000 to 20,000 population in 1980.

There is concern about the advancing age of family practice/general practice physicians.

Significant changes in both the geographic and specialty distribution of physicians in non-metropolitan towns are taking place in Tennessee. The number of primary care specialists in one

TABLE 12

PERCENT INCREASE IN PRIMARY PHYSICIANS NON-SMSA TOWNS—TENNESSEE—1979-1980

Population	Internal Medicine	Pediatrics	Obstetrics/ Gynecology	Family Practice/ General Practice	Total
2,500- 5,000	3	1	0	7	11
5,000-10,000	5	1	0	23	29
10,000-20,000	11	(3)	5	12	25
20,000-30,000	7	0	11	3	21
30,000-50,000	7	0	7	0	14
TOTAL	33	(1)	23	45	100

TABLE 13

MEDICAL SCHOOL IDENTIFICATION OF TENNESSEE PHYSICIANS IN 58 NON-SMSA CITIES OF 2,500-50,000 POPULATION[4]

Medical School	No. of Physicians 1979	No. of Physicians 1982	Increase	% of Total Increase
University of Tennessee	513	563	50	39
Vanderbilt	65	66	1	1
Meharry	3	6	3	2
Loma Linda	20	21	1	1
Georgia	10	18	8	6
Louisiana	18	23	5	4
Pennsylvania	17	14	(3)	(2)
Other U.S.	134	170	26	28
Canada	4	18	14	11
Mexico	6	6	0	0
India	17	17	0	0
Philippines	10	13	3	2
Other (FMG)	27	38	11	8
TOTAL	844	973	129	100

year (1979-1980) increased 16% in non-metropolitan towns and 20% in the five largest metropolitan counties.

Economic and population density variables continue to have a significant influence on the probability of location of medical specialists in non-metropolitan areas.

Half of the primary care physicians located in non-metropolitan towns of 2,500 people or more were board certified specialists in 1979.

Three significant literature references for rural medicine should include the articles by Hough and Marder,[10] Pearse and Mendenhall,[11] and Wennberg and Gittelsohn.[12]

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
NOTES					1	2
3	4	5	6	7	8	9
10	11	12	13 TMA 148TH ANNUAL MEETING Opryland Hotel—Nashville	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Prostitution in Memphis: Then and Now

HENRY PACKER, M.D., D.P.H.; SUMNER GLASSCO; and
CHARLES KONIGSBERG, JR., M.D., M.P.H.

The role of the prostitute as an important source of venereal infection in a community has always been a matter of concern to those responsible for venereal disease control, due to the high infection rate usually found in her group and the multiple opportunities she has for transmitting her disease to others. Tolerated houses of prostitution, as depicted in the recent movie, "The Best Little Whorehouse in Texas," were once very common in this country, and still exist in many of the larger European cities. Forty years ago, such tolerated houses existed in Memphis, and one of us (H.P.), serving as epidemiologist for the local venereal disease control program, wrote a paper describing the situation as it existed in Memphis at the beginning of World War II, when large aggregates of Army and Navy personnel stationed in this area provided many patrons for these establishments.[1]

Since prostitution continues to pose a problem for venereal disease control programs, this report will attempt to recall the measures undertaken to minimize the transmission of venereal disease by prostitutes during the era mentioned above, for comparison with measures taken during recent years, when prostitutes have usually made their initial contacts with their customers on the streets. As stated in the earlier paper, "It would be presumptuous indeed for any program to lay claim to control of prostitution so long as the fundamental factors which create a demand for prostitution continue to exist in our social and economic structure. The more modest aspiration of prostitution 'abatement' is believed to be more in line with the realities of the problem as it exists in our time." We will compare the infection rates for venereal disease encountered in Memphis 40 years ago with those found in this group recently, as well as in other segments of the local population. Recent measures to secure "abatement" of this problem by a different approach will be described, with an attempt to evaluate its effectiveness.

During the earlier period, local public officials permitted a limited number of houses of prostitution to operate undisturbed, accepting prostitution as a necessary evil. The inmates of those houses were periodically checked by the police, and so long as they were able to present evidence of a negative blood test within the past month, or current treatment, they were not molested. Street solicitors were arrested, however, and if they could not present evidence of a recent negative blood test for syphilis they were taken to a public clinic for examination. The negative reactors could post bond of $10 and obtain immediate release. Those found to be infected were fined $75, with the hope they would accept sentence to the penal farm, where competent treatment was available. A surprisingly large number of prostitutes who could have paid their fine accepted sentence to the penal farm, which was noted for the humanitarian treatment of its inmates. No facilities existed, however, for the follow-up of these prostitutes after release to see that they completed the prolonged course of treatment with arsenicals and bismuth needed to cure syphilis at that time. Undoubtedly many suffered infectious relapses and became sources of infection again.

Under this system, tolerated prostitution flourished in the small hotels and rooming houses in the vicinity of Main Street. Many of these were rented only to girls who were willing to divide their earnings with the landlady. The leading hotels were infested with prostitutes, who plied their trade openly, if not actually with the tacit approval of the hotel management. It was established that at that time between 500 and 700

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prostitutes were plying their trade in Memphis. These "supervised" prostitutes were frequently named as sources of infection of patients seen in the venereal disease clinics of the Health Department, and the epidemiologist for the control program attempted to identify them, especially if a house of prostitution was designated as the place of contact. Operators of these houses were usually very cooperative, pointing with pride to the fact that "every girl in my house has a health certificate," which was often framed and displayed for the customers to see. Verification of the ownership of these certificates was impossible, however, and it was obvious that an infection might have developed after the certificate was obtained, if indeed it was not a fraudulent one to begin with. Many of these "certified" prostitutes were identified as sources of syphilitic infection of patients seen in the clinics. Medical supervision of this type appeared to be an empty gesture.

One of the first steps taken in the prostitution "abatement" program during this early period was the establishment at police headquarters of a diagnostic clinic, through which all arrested individuals except traffic law violators were required to pass for examination for venereal disease. It was expected that a large number of the women seen in this clinic would be prostitutes, as sooner or later these individuals fell afoul of the law either in practicing their profession or from related forms of law-breaking. The commissioner of police stated that "women are being shipped to Memphis like cattle. Aside from spreading disease, they are in league with pickpockets, holdup men, et cetera, and in the wake of such lawlessness there is every form of graft. This condition is intolerable, and I do not intend to stop until Memphis is freed from this evil of commercial vice." To achieve this, in 1941 he ordered all houses of prostitution to be closed, and this aspect of the problem came to an end.

For comparison with more recent statistics, it should be pointed out that, based on reported cases, Memphis had at that time the highest syphilis infection rate of any large city in the United States. In 1941, over 10,000 persons were reported as being under treatment for syphilis there. Since reporting was poor at that time, this figure understates the problem. The infection rate for syphilis found in white women examined in the police diagnostic clinic ranged from 20% to 45% at monthly tabulations. These women were mostly prostitutes. For comparison, the syphilis infection rate found in white women registered at the prenatal clinic of the Health Department in 1940 was 2.8%. Among black women examined in the police diagnostic clinic, the monthly infection rates ranged from 35% to 70%, compared to a rate of 27% found in pregnant black women registered with the Health Department.

With the introduction of penicillin therapy for syphilis, the infection rate plummeted to extremely low levels in Memphis, as elsewhere. The early eradication of the disease was predicted by many. In contrast to the 850 cases of primary and secondary syphilis reported in Memphis in 1946, only 28 cases were reported in 1960. Due to this dramatic change in the picture, the Health Department lost interest in prostitution "abatement," and turned its efforts to greener pastures.

To demonstrate its eternal character, however, the incidence of primary and secondary syphilis in Memphis has steadily increased during the past two decades, so that by 1980 over 20 times as many cases of primary and secondary syphilis (668 cases) were reported as had been reported in 1960. This was the highest rate in 25 years. Such statistics led to a reincarnation of interest in prostitution, since there was evidence that prostitutes were contributing significantly to the increased prevalence not only of syphilis, but also of gonorrhea. Over 12,000 cases of gonorrhea were treated in the Health Department clinics in 1980, and many of these indicated that prostitutes were their source of infection.

To cope with this situation, a cooperative action between the Health Department and the Police Department, designated as "Operation Streetsweep," was undertaken in 1980. No pretense was made that the actions taken in this operation would eradicate prostitution, but rather that the objective was to control the spread of sexually transmitted diseases from this source. It was made clear that whatever punitive actions were undertaken had mainly this purpose.

Under Tennessee law, convicted prostitutes can be fined $50 and sentenced to 30 days in jail for a first offense, $50 and 60 days in jail for a second conviction, and $500 and 11 months and 29 days in jail for a third offense. It was decided not to invoke these harsh penalties in "Operation Streetsweep." Prosecution under the state law required considerable time and effort, because the defendant must have offered a vice squad officer a special sexual activity in return for a specific

price, and such evidence was not always easy to obtain and prove. It was decided to invoke only the city ordinance, which prohibits the flagging down of cars by prostitutes, a practice in which they commonly engaged. This violation carries a maximum fine of $50. A charge of "assignation" was placed against such prostitutes and they were transported to the city jail, where they were booked, fingerprinted, and photographed for future reference.

At the time of this arrest, both the prostitute and the arresting officer are asked to sign a citation, prepared with legal advice, in which the prostitute agrees to report to the Health Department on a specified date to undergo an examination for the presence of venereal disease. The arresting officer had already been designated as a deputy health officer by the director of the Health Department. The citation is brought to the Health Department the following day and held for seven days awaiting the appearance of the prostitute for examination. If she appears, the usual tests for venereal disease are made, she is treated if necessary, requested to return for a test cure, and no further action is taken if she conforms to these procedures.

If the prostitute does not appear at the Health Department within the appointed period of time, a warrant is issued for her arrest, taken to the judge of the General Sessions Court to be signed, and provided to the vice squad to be served upon her. When the prostitute is arrested, the Health Department is notified, with the date for court action indicated. A representative of the Health Department appears in court at this time and requests that the prostitute be held under quarantine in the new city-county jail in the Justice Complex Center until an examination for venereal disease has been carried out, diagnosis made, treatment administered, and a test of cure performed, as circumstances indicate. A nurse accompanies the representative of the Health Department at this time and performs the necessary tests, including a serologic test for syphilis and cultures for gonorrhea at four sites in women and at three sites in men. The prostitute remains in jail until the results of the tests are reported. If they are negative, she is released. If they are positive for gonorrhea, treatment is given and the prostitute remains in jail for two more days until a test for cure can be performed and reported. In either case, the Health Department representative must return to court to request either dismissal or a continuation of the case until the test of cure report is received. Positive serologies for syphilis are individually evaluated to see if treatment is needed.

It is too early to evaluate the impact of "Operation Streetsweep" upon the venereal disease rate in Memphis, but some early indicators suggest that it may be exerting a favorable effect. The most sensitive indicator of new syphilitic infections, primary and secondary syphilis, has shown a decline from 668 cases in 1980 to 433 cases in 1981, a significant reduction. For the first six months of 1982, the number of such cases was 187, suggesting that the reduction is continuing during this year. It is estimated that between 20% and 30% of syphilitic infections in our community are acquired from prostitutes, and this downward trend may be of significance. The infection rate for syphilis found in 445 prostitutes examined between July 1980 and June 1982 was 6% in 414 female prostitutes and 16% in 31 male prostitutes. This is much higher than the syphilis infection rate of approximately 1% found in persons under 40 years of age applying for health cards and premarital tests during this period.

The number of cases of gonorrhea reported during the two and one-half years since the inauguration of "Operation Streetsweep" has shown little change, remaining in the vicinity of 13,000 cases each year. This represents a significant decline, however, from a peak of approximately 16,000 cases reported during both 1976 and 1977. The infection rate for gonorrhea observed in prostitutes during that period was 11%. For comparison, an infection rate of 4.7% was found in 51,303 women attending the prenatal and family planning clinics of the Health Department during this period of time.

In conclusion, the statistics presented here suggest that prostitutes constitute an important source of infection for sexually transmitted diseases in this community, by virtue of their high infection rate with these diseases. While "Operation Streetsweep" makes no pretense of providing a complete solution to the prostitution problem in Memphis, we believe that it is a step in the right direction, and a more rational approach than the one used in the era of tolerated houses of prostitution.

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The Early History of Medicine In Nashville

R. H. KAMPMEIER, M.D.

Two years ago Nashville celebrated the bicentennial of its founding and the epic of the migration from East Tennessee of two bands of intrepid pioneers: one, of the younger men, driving their livestock before them over almost 500 miles of trails and woodlands under the leadership of James Robertson, arriving at the future site of Nashville on Christmas 1779; and the second, of women, children and older men, under the guidance of John Donelson in a flotilla of boats, to travel a thousand miles down the Tennessee and up the Ohio and Cumberland rivers to arrive in April of 1780.

To set the stage for my story let us visualize the early settlement, Nashborough, as described by John Egerton,[1] around a fort on the bluff between where the Woodland Street Bridge now stands and Church Street. The town was to become established a couple of decades later, in the area of the courthouse square, only after the Indians were driven away; the city would spread from there. Harrassment by Indians during the first decade and a half was frequent by ambush or open attack. Egerton tells how by the fall of 1781 only one-fourth of the settlers remained; 50 had been killed and the remainder had moved to safer areas in Kentucky and Illinois. He adds that the last battle with the Indians was in September of 1792, and that the treaty in 1795 with Spain—the supplier of weapons to the Indians—ended Indian warfare and opened the area to river traffic and an influx of settlers.

The first child born in the settlement was a son to the leader James Robertson on June 11, 1781, to be named Felix. I will have more to say about him later, but now will quote from his address upon retiring as president of the Medical Society of Tennessee in 1855, at the age of 75—the title of the address—"Pioneer Physicians of Nashville"—published in the *Southern Journal of Medical and Physical Sciences.*[2] He commented upon the first surgical procedure done in the settlement on the date of his birth, when his father, a layman, performed an operation he had frequently seen done in East Tennessee and described by Dr. Vance, a physician in the Revolutionary Army who settled in the Kingsport area in the 1770s or 1780s—an operation for victims of scalping by Indians—of boring holes with a shoemaker's awl in the outer table of the skull to permit granulation tissue eventually to cover the skull. This patient, David Hood, who had been shot by Indians, scalped, and left as dead, lived to old age.

Robertson described the first physician to settle in Nashville in about 1784—a James White—as "a gentlemanly man of very distinguished general literature"; educated in medicine in Edinburgh, he also had studied in Divinity and Law. His failing was going on occasional drinking sprees when "dressed in buckskin and with a gourd of whiskey would force all he met to have a drink." Elected as the first delegate to Congress, while en route to Washington by horseback he became enamoured of a North Carolina girl. Dressed as a boy, she posed as his valet mounted on the horse behind him. She bore a son before their return to Nashville, where they established a large estate on the banks of the Cumberland. The son was educated at Cumberland College and eventually became governor of Louisiana and a U.S. senator. Of Dr. White, Robertson wrote, "He was liberal and free with his medical advice, but could never be prevailed on to pursue the practice of medicine as a regular business."

Drs. John and Mark Sappington came to Nashville from Baltimore in 1786. Dr. Robertson personally knew the latter and described him as "very particular in dress, wore hair powdered, shorts and massive silver knee and shoe buckles," and "is possessed by a high order of mind and was an intelligent and successful physician."

This is the first paper of a symposium on Medical History in Nashville, presented before the Nashville Academy of Medicine, Sept. 14, 1982, Nashville. The remaining papers will be published subsequently.

He had four sons, all apprenticed to him, all practiced medicine. One was killed in duel with another physician, a Dr. May.

Felix Robertson continued his story by naming a half dozen doctors who came to Nashville between 1785 and the early years of the 19th century. One opened the first apothecary shop in Nashville in 1794. In the main they quit practice to go into mercantile pursuits, or returned whence they came. Among them was a Dr. Boyd McNairy, a graduate of the University of Pennsylvania who, after Andrew Jackson was shot on the market square by a rival politician, Benton, took him into his home for ten days of treatment before removing him to the Hermitage.

I now turn my attention to Felix himself. He had as preceptors Drs. Claiborn and Hays of Nashville. He then enrolled for two courses of lecture at the then premier medical school in America, the University of Pennsylvania, receiving the medical degree there in 1806. At his graduation he presented a thesis on *St. Vitus Dance*, of which it was said "the ability and originality with which he treated his subject, led to its publication by the Faculty of Medicine, and it was subsequently copied into several Medical Journals, domestic and foreign."

Robertson was to became a leader in the community, serving as alderman and mayor of Nashville and director of the bank. He served as trustee of Cumberland College, which became the University of Nashville, and had a hand in establishing a medical department of that University. He not only established himself as a competent physician but became a leader in the medical community.

An organized society of physicians presumably grew out of a meeting of a group of seven on March 5, 1821 to consider fees for medical services.[3] Those present were Drs. A. C. Goodlett, R. A. Higginbotham, Boyd McNairy, James Overton, James Roane, Felix Robertson, and John Waters. Felix Robertson was elected president and James Roane secretary. A fee schedule was agreed upon (Table 1), and a pledge was taken as follows: "We, the undersigned members, agree that we will not charge less for the above-enumerated services than the several prices affixed to them above, and to this effect mutually pledge ourselves each to the other under the sanction of a solemn pledge and promise." It was signed by all present. It is rather remarkable that four of the seven were graduates of medicine, three from the University of Pennsylvania and the fourth from New York.

TABLE 1

SCHEDULE OF FEES ADOPTED IN MARCH, 1821, IN NASHVILLE

For visit in town	$ 1.00
For riding in country, per mile	1.00
Any visit out of town, not less	2.00
For bleeding	1.00
For extracting tooth	1.00
Carthartics and emetics, each	.50
For pills, half dozen	1.00
For obstetrical case	20.00
For gonorrhoea case	10.00
For L V	20.00
For powders, per dozen	1.50
Consultation	5.00
Prescription at shop	1.00
Amputation of thigh, leg and arm, each	50.00
Vaccination	2.00
Trepanning	50.00
For visit at night, after abed	5.00
Night visit, double price of day	2.00
Cupping	2.00
Blister	1.00
Arteriotomy	2.00

What steps were taken to form a medical society is not known. Dr. Woodring's essay[3] *Pioneer Medicine and Early Physicians of Nashville*, states that the Society held meetings in the log courthouse on the public square and that in 1826 changed its name to the Nashville Medical Society. Furthermore, he added that the newspaper, the *Nashville Whig*, of Nov. 12, 1828, carried a report of a meeting of this Society in the courthouse, naming the 17 doctors who attended the meeting. Historian James Summerville* has found an imprint in the State Archives entitled, "Investigation of Charges of Dr. Charles Pugsley vs. Dr. Samuel Hogg and Dr. Walker before the Nashville Medical Society, 1830," thereby confirming the existence of a Society. There are no minutes or other documents that give us information of subsequent activities of the Nashville Medical Society over the immediate years. As we

*Mr. James Summerville is currently engaged in research for writing a history of the Nashville Academy of Medicine. This will require an extensive search of old newspaper files, and other sources over and above items he may find in the meager medical publications of 150 years ago. Some of his gleanings to date appear in this article.

will see below, there is even uncertainty as to unbroken continuity of this Society, but its members were far seeing, for in less than a decade they proposed a statewide medical organization. Possibly this diverted their interests and activities away from a purely local Society. On the other hand, the development of the Tennessee Medical Association (TMA) is quite well documented by Hamer,[4] and so I will pursue its origins for the moment.

A group of physicians of Middle Tennessee met at Murfreesboro to consider a statewide organization, which resulted in the introduction by Mr. Berry Gillespie of Carroll County of a bill, in October 1829, in the House of Representatives, "An Act to incorporate a medical society of the State of Tennessee, charter members being 45 from East Tennessee, 79 from Middle Tennessee, and 27 from West Tennessee."

The first meeting of the Medical Society of Tennessee was held in Nashville in May of 1830, *the Medical Society of Nashville acting as host*; 47 of the charter members were present—34 from Middle Tennessee, of whom ten were from Nashville, four from East Tennessee, and nine from West Tennessee. Three officers were elected from Nashville, one from Knoxville, and one from Murfreesboro. In his history of the first century of the TMA, Hamer commented that the Medical Society of Tennessee *was essentially a Middle Tennessee Society*. All meetings of its 31 years of existence before the Civil War were held in Nashville except for four held in Murfreesboro; faithful attendants were Nashvillians, several from Rutherford County, and a few from other adjacent counties; rarely were there members from East or West Tennessee. Its continued existence depended upon Nashville's leaders, who insisted on the need for some organization to control quackery and maintain ethics. Dr. Roane was the first president. He died of cholera in his second term, which was completed by Dr. Stith of Franklin pro tem. Felix Robertson served three terms 1834 to 1840, and again a term 1853-1855. From 1840 to 1863, five Nashville physicians served as president, as did two from Murfreesboro and one from Clarksville. The Tennessee Medical Society lay dormant from 1863-1866 because of the War, with no officers elected. After its reorganization in 1866, Nashville doctors *again* held the presidency for a decade, following which other areas of the state had their share of officers and the Society lost its more or less parochial character.

The call for a national medical convention by the New York State Society in May of 1846 was attended by Dr. W. A. Cheatham of Nashville as delegate from Tennessee. At the Philadelphia meeting a year later to establish the AMA, Dr. A. H. Buchanan, who had become a leader in medicine in Nashville and was president of the Tennessee Society, represented the Society and was elected as one of the four vice-presidents of the AMA.

As recorded by Hamer, a Medical Convention of the State of Tennessee "was called for October 1847 to consider certain recommendations of the newly born AMA." Thirty-nine physicians attended; John Shelby of Nashville was chosen president. To this body, Dr. Buchanan presented three resolutions to be considered: (1) The Code of Medical Ethics of the AMA, which was approved. (2) A Committee of Nashville Physicians—Robertson, Buchanan and Ford—were to seek (unsuccessfully) from the state legislature legislation, as recommended by the AMA, to register births, marriages, and deaths. (Time and again this request of the TMA was rejected by the legislature until its passage finally in 1881.) (3) A committee from Nashville was to request amendments to the charter empowering it to charter county societies; this the legislature approved.

Of special importance were recommendations and resolutions proposed by the AMA concerning medical education. These were adopted:

> (1) That it should be recommended to physicians to receive into their offices as students only such young men as had good moral characters and a good English education, "a knowledge of Natural Philosophy and the Elementary Mathematical Sciences, including Geometry and Algebra, and (such) an acquaintance, (at least), with the Latin and Greek languages,—as will enable them to appreciate the technical language of medicine, and read and write prescriptions"; (2) that it should be recommended that when a physician had satisfied himself that a candidate for preceptorial instruction under him had the qualifications as stated above, he should give to the young man a certificate to that effect, on which should also be recorded the date of his admission as a medical student, to be carried with him as his warrant for reception into a medical college; (3) that it should be recommended to medical colleges to require such certificates of applicants for matriculation and to publish with the name of each graduate, in the annual list of graduates, the name and the residence of his preceptor.
>
> 1st.—Resolved, That this Convention recommends to practitioners of Medicine, who receive students into their offices, to devote strict attendition to their in-

struction during the period of their pupilage.

2nd.—Resolved, That the course of instruction be full and comprehensive, embracing the following studies: Anatomy, General, Special and Pathological Surgery, Materia Medica, Practice of Medicine, Midwifery, Chemistry, and Physiology.

3rd.—Resolved, That this Convention recommends the propriety of establishing primary Medical Schools, in which pupils may be prepared to enter Medical Colleges.

The annals of the TMA in the 19th century reveal the enlightenment of its members in their espousal of vaccination for smallpox, seeking legislative help in coping with charlatans, amelioration of penalties for "grave robbing" (essential to dissection and a knowledge of anatomy for the practice of surgery), and the establishment of a state board of health, board of licensure and a department of vital statistics—in some instances pleading repeatedly for over a half century before getting legislative action.

With the establishment of the Medical Department of the University of Nashville in 1851, three physicians were brought to Nashville who were to become national figures—Paul Eve, William Briggs, and William Bowling; the last established the *Nashville Journal of Medicine and Surgery*. (Felix Robertson was president of the Board of Trustees of the University of Nashville in these early years of the Medical Department.) The first class enrolled in the medical school was in the fall of 1851. Enrollment increased annually until in the 1859-1860 session there were 456 students, making it the third largest medical school in the country, exceeded only by Jefferson Medical College and the University of Pennsylvania, both in Philadelphia. Among the 140 graduates of 1861 were, in addition to those of Tennessee, students from ten southern states as well as from Texas, Illinois, and the Cherokee Nation.

Although I began this paper with the beginning history of the Nashville Academy, it came to a dead end when information of the Nashville Medical Society ended in 1830. That year saw the documentation of the beginning of the TMA history. Nevertheless, it is well to keep in mind the continuity in origins of the two organizations. In 1821, the seven signatories of the fee schedule were men who eight years later met with others to petition a charter for a state organization, then became officers of that State Society and became involved in its adherence to the AMA, which was established in 1847. Incidentally, the AMA met in Nashville in 1857, with Paul Eve as the 11th president of the Association. At that meeting Felix Robertson was honored by election to permanent membership in the AMA.

Would you agree with me in believing if there had been minutes of meetings (if they were held) of the Nashville Medical Society, they would have contained much discussion by these Nashville leaders of Tennessee's medical profession about the offshoots of their first meeting in 1821? Having recorded their impetus to the formation of a state medical society, and support of the beginnings of the AMA, and with the knowledge that after the reorganization of the Tennessee Society in 1866 it would lose its parochial Nashville initiative, I return to pick up the threads of the Nashville Medical Society.

The July, 1858 number of the *Nashville Journal of Medicine and Surgery*[5] carries a news item that implies the formation of the Nashville Medical Society *de novo*. (Noting the same name as adopted in 1826 [see above] one cannot help but wonder if it represented a reorganization of a moribund society.)

NASHVILLE MEDICAL SOCIETY

At a regular meeting held in this city on Wednesday, the 9th instant, the Constitution amended by the committee appointed for the purpose of framing one, was unanimously adopted, and the Society was finally organized under the above name. The following gentlemen were elected Office-bearers for the ensuing year:

President—A. H. Buchanan, M.D.
Vice-President—S. S. Mayfield, M.D.
Secretary and Treasurer—Geo. S. Blackie, M.D.

The next meeting will be held on the first Wednesday in July, and meetings will continue to be held on the first Wednesday in each month throughout the year. We wish particularly to direct the attention of physicians throughout the county and in the city to the existence of this Society, and to beg their assistance in keeping it up. We fear they do not fully appreciate the advantages to be derived from frequent professional intercourse, not only in the results it will produce on their professional labors, but also in the promotion of friendly intercourse between man and man. Forming the centre of a populous district, with every opportunity for observation around us, numbering as we do, in our ranks, many men of undoubted talent and energy, it is our duty to add to the progress of medical science, and by such means it is to be done. Let us then meet regularly and support the Nashville Medical Society; do not let our sister counties put us to shame, with our advantages we must rather guide and direct them, and do not permit these excellent men among us who have striven to establish this body, to be left alone in the field, and the New Medical Society to be classed among the things that were.

A report of the December 1858 meeting of the Nashville Medical Society carried a discussion concerning the establishment of a board of health. A sentence in this discussion is of interest: "Dr. Newman stated that during the epidemic of cholera the *Robertson Association* had appointed such a Board but never got them to act." The question arises: What was the Robertson Association—had the previous Nashville Medical Society changed its name?

According to Woodring, after the hiatus in its activity due to the Civil War, the Nashville Medical Society was reorganized on Aug. 16, 1865 at a meeting in the office of Drs. Bowling and Cheatham. He listed the roll of members as of Aug. 18, 1865—41 in number. Continuing to quote Woodring, "the fee bill" was agreed on some years previously by the Society and on Jan. 3, 1866 it was decided to mail it to all doctors in Nashville. Also, it was agreed that future meetings were to be held in the hall of the Board of Health, at the corner of Union and Cherry streets, instead of in different doctors' offices. A newspaper article documents that the Edgefield Medical Society held a joint meeting with the Nashville Medical Society in 1873 to advise on the cholera epidemic.

Woodring mentions the presidents of the Nashville Medical Society for 1876 and 1877. He then goes on to say that in 1879 a dispute in the election of delegates to the State Association led some members to resign from the Nashville Medical Society to form the Davidson County Medical Society. The latter portion of the above sentence is incorrect in light of documentation turned up by Mr. Summerville. In July 1853, the *Nashville Journal of Medicine and Surgery*[6] carried the following news note: "The Physicians of Davidson County in a convention called for that purpose met in the Nashville Town Hall, on the 15th ult. (i.e., June 15?) and organized a medical society." I would guess this was stimulated by the recently established AMA, because a comment was included that the AMA needs a "large deputation from County Societies to insure against premature decay." The next month the *Journal* reprinted the Constitution of the *Davidson County Medical Society*. In the following issue (September) there appeared the report of the "First regular meeting of the Davidson County Medical Society" at Fireman's Hall, Nashville, Aug. 3, 1853 and the presidential address of D. W. Yandell, oratorical and of five pages in length.

Woodring states that an *Edgefield Medical Society* had been formed in 1872 by 15 doctors living in Davidson County outside of Nashville, and that it amalgamated with the Davidson County Medical Society. Here is a historical gap that needs clarification. Did the Davidson County Medical Society become dormant during the Civil War? If not, why should an Edgefield Medical Society come into being?

Then the May 1886 number of the *Journal*[7] carried the following notice: "A meeting of the physicians of this city was held in Watkins' Institute, April 15th, for the purpose of organizing a Medical Society." Dr. N. G. Tucker was called to the chair, and Dr. J. W. McAlister appointed, Secretary pro tem. The name Nashville Academy of Medicine and Surgery was proposed and adopted. The meeting then proceeded to permanent organization by the election of the following officers: Jno. W. Maddin, Sr., president, N. D. Richardson, vice-president, and Jno. W. McAlister, secretary and treasurer. A Committee on Constitution and By-Laws was appointed, after which it was agreed that the Society proceed to active work at once.

The next month the *Journal*[8] printed the lengthy "Inaugural Address" by Dr. Maddin, delivered at the first meeting of the Academy, April 22, 1886. Of interest is the concluding sentence of a long paragraph devoted to the institutions, citizenry, and attributes of Nashville given in Victorian flights of oratory—the concluding sentence, *"A city which can boast as illustrious a roll of medical men, dead and living, as any in the land, I blush to acknowledge it, and with shame confess it, was without a regular medical society organization until to-night."* (Italics mine.) Dr. Maddin served as a member of the faculty of two of Nashville's medical schools, and his name too was on the roll of members of the Nashville Medical Society cited by Woodring as of 21 years before.

What had happened to the Nashville Medical Society? Had it died sometime between 1865 and 1886? I hope that the historian and Academy will be able to fill in this gap.

It is said that the Academy was at a low ebb by 1890, and that in 1893 it and the Davidson County Medical Society united, providing its rather unusual double name.[3] (In 1906, it was officially incorporated with a charter from the State of Tennessee.)

Yet by 1891, the Academy was so firmly es-

tablished that it could provide itself with a more or less permanent meeting hall, as described in an editorial of the *Southern Practitioner*.[9]

> The Nashville Academy of Medicine and Surgery held its first meeting in its new quarters in the new Mill block, on Church street, adjoining the Theater Vendome, Thursday night, January 15th ult.
>
> There was a large attendance of members and of visitors.
>
> The new home of the society, located on the second floor of the building mentioned, consists of an apartment of convenient size and shape, which has been commodiously, attractively and handsomely furnished. . . . The President's chair, a very handsome and comfortable one, occupies a platform at one end of the room. The apartment is well lighted by gas, the brazen fixtures being, like all else in the room, quite attractive in pattern.
>
> The President, Dr. James B. Stephens, called the Academy to order and delivered the opening address. He referred to the fact that for the first time the Academy occupied a room exclusively its own. . . . Physicians could not afford to deprive themselves of the advantages offered by the reports of cases and discussions had at the Academy's meetings. "We want to enroll the name of every reputable physician in the city," said Dr. Stephens.* He said that Nashville was as well supplied with good physicians and surgeons as any city of its size in the country. . . .
>
> Dr. W. D. Haggard gave a history of the Nashville Academy of Medicine. He said its progress was something to be justly proud of. Early in 1886 a few gentlemen made a canvass to see if a medical society could not be established on a permanent basis. He mentioned some of the causes which operated against previous movements of the same character. A meeting of physicians was called in April, 1886, an organization was formed, and Dr. J. W. Maddin was elected the first President of the Academy. . . . The third year Dr. W. A. Atchison was elected President. For some cause during the summer of that year, Dr. Haggard said, interest flagged and members began to grow tired of the Association. The third meeting, after an adjournment had been taken for the summer because of small attendance, had only four members present. These four discussed the question of reviving an interest in the society, and one of them proposed that they pray over the matter. They did bow, while one of their members offered an eloquent prayer. These four men determined to revive an interest and to personally try to increase the attendance; the forward movement began and the society had been prospering since that time, and would, Dr. Haggard believed, go on forever. He did not know whether the result was attributable to the prayer or not. The next year Dr. J. S. Cain was elected President, and the society prospered as it had never done before. Dr. J. B. Stephens, the president incumbent, was next elected. This was the year of the meeting of the American Medical Association in which the physicians of the city took much interest and toward the entertainment of which it contributed much. They had a surplus of funds raised for this purpose left, which was voted to the Nashville Academy of Medicine and Surgery, and was devoted to the preparation of this its new home. . . . The benefits to be derived from the Academy's meetings were eloquently discussed.
>
> Dr. J. P. McFarland followed in a good speech on the subject of "The Medical Profession of Nashville—Its Standing at Home and Abroad." . . :
>
> Dr. J. R. Harwell came next with a talk on "The Doctor—Who is He, Socially and Professionally?" . .
>
> Dr. J. Y. Crawford was the next speaker. His subject was "Specialism in Medicine." . . .
>
> The concluding paper was by Dr. J. R. Buist on the subject of "Koch's Discovery." . . .
>
> The meeting nights of the Academy were changed from the second and fourth Tuesday nights to the first and third Thursday nights each month. . . .

Forty-five years later, in 1936, when I became a regular attendant at meetings of the Academy, they were held in its meeting hall in the Doctors Building, panelled and graced by the portraits of its members who had been honored by the presidency of the AMA. Now the completed gallery adorns the walls of the Academy's home. (Although I am not certain of the date of the removal to the Doctors Building, I am told the building was completed in about 1912.)

Recollections of 1936 prompt me to include some observations because of a one to two generation gap. Meetings of the Academy were held *every week*, and were attended each by a goodly proportion of its membership, then a total of about 230. Two papers were presented each evening, followed usually by a lively discussion where Greek and Latin phrases might be bandied about by the older members, and bits of Victorian oratory might be refurbished. The camaraderie of a small coterie of the oldest members was obvious as they joyfully needled one another in discussions of papers. The great majority in attendance held Vanderbilt appointments, clinical or full-time, and many of the clinical faculty then were actively contributing to Vanderbilt's teaching program.

For today's members, startled by weekly meetings well attended, the facts must be put in perspective. The conditions still obtained in 1936, which prompted Osler's essay, "On the Educa-

*According to Hamer, the first report of the State Board of Medical Examiners, 1890, revealed that of the 3,200 registered physicians of the state, slightly more than one-half were graduates of medical colleges. Of the 1,500 non-graduates, it was estimated that one-half "never saw within the walls of a medical college. . . ." They were licensed under a "grandfather" clause.

tional Value of the Medical Society," earlier in this century, in which he urged membership and consistent attendance at county and state medical meetings and that of the AMA.

"The Society helps to keep a man 'up to the time' and enables him to refurnish his mental shop with latest wares." Here were the best and *only* sources of continuing education for the average doctor. Interests of most practitioners basically were still broad and less specialized. Travel to distant meetings in 1936 was still by train. The only specialty organizations for practitioners, with the year of their formation, were: American College of Surgeons, 1913, of Physicians, 1915, American Society of Clinical Pathologists, 1922, American Academy of Pediatrics, 1930 and American College of Radiology, 1934. Many older members of the Academy could not qualify for such specialty organizations, and therefore local specialty groups were born. The eye, ear, nose and throat group was the first to organize such a society. Although I could not document its origin, I learned it was meeting regularly in 1930. The Nashville societies of surgeons and of pediatricians were organized in about 1939, the Society of Internal Medicine in 1948, and that of the obstetricians and gynecologists in the early 1950s. The dates of organization of the Tennessee specialty societies are documented elsewhere.[10] The growth of specialized interests among new members, meetings of specialty groups, nationwide tightening up of hospital staff organization, added up to more meetings that encroached upon meetings of the Academy. The first result was two meetings monthly, and by 1953 monthly meetings not too well attended because topics of broad interest did not attract specialists, and specialty topics attracted a limited attendance. Efforts of successive program committees failed to stem the loss of interest in scientific programs.

With plans for the removal of the Academy's headquarters to the office building of the TMA early in 1956, the portraits of past AMA presidents were hung at the Vanderbilt School of Medicine until the Academy acquired its home in 1974.

Over the long term, the Nashville Academy of Medicine and Davidson County Medical Society has been the most influential county society of the state. Its members have included many of the top influential leaders and medical statesmen in Tennessee. Bias aside, this might have been anticipated in the capitol city of the state and a center of medical education for over a century.

The Academy has provided eight presidents for the AMA—their portraits hang in the Academy office. Until the custom of full-time faculties became a fixture by the 1930s, the presidents of the AMA commonly were prominent clinicians and/or teachers. Thus, it is not surprising that Nashville early provided AMA presidents. In the first 75 years of AMA history, only Philadelphia and New York City provided more presidents than Nashville. The 11th president (1857) was the colorful Paul Eve, the 27th, William Bowling (1875), the 43rd, William Briggs (1891), the 65th John Witherspoon (1913), the 78th William Haggard (1925); all were identified with clinical teaching. More recently, the Academy has provided the 100th, Harrison Shoulders (1946), the 101st, Olin West (1947), and the 133rd, Tom Nesbitt, in 1978.

It would be impossible to review the many activities of the Academy in its more recent years, and with which most of the active members are acquainted. However, it should be of interest to comment briefly on several projects or events of a quarter of a century or more ago. From 1948-1953 the Academy experimented with a postgraduate program, bringing speakers of national prominence to an annual Nashville Postgraduate Medical Assembly. However, its growth was too slow to warrant its continuance.

Because of the Korean War and the doctor draft, the physician shortage at the resident level put a nationwide squeeze especially upon non-university hospitals. A committee of the Academy made an attempt, with the cooperation of Nashville's hospitals, to develop integration of the housestaff of these hospitals, but with very limited success.

Finally, the Academy took the first step in Tennessee toward the admission of black doctors to membership. The presence of Meharry Medical School made us more aware of their unfilled need for AMA membership, required for specialty board eligibility. In 1952 a resolution to admit blacks to membership in the Academy was brought to the floor for a vote by its members. It was defeated, but when it was again proposed in 1954, it was passed. The Shelby County Society voted similarly the same year, the Knoxville Academy did the same in the following year. A decade passed before the Chattanooga and Hamilton County Society caught up with the other urban societies in this respect.

This has been a brief review of activities of Nashville's doctors as they have striven for more than 150 years to maintain viable professional organizations for the public good, medical education, and professional competency. I hope it may stimulate some of you to pursue the story in more detail by referring to the TMA centennial history of 1930, my sesquicentennial sequel of 1981, and articles published in the TMA *Journal*. All of us await with anticipation the history of the Academy, a work in which James Summerville is now engaged, and which will probably fill in the gaps I have indicated above.

Justice Holmes said—"Continuity with the past is not a duty, it is a necessity."

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CAT Scan of the Month

STEPHEN L. GAMMILL, M.D.; DAVID HOLLOWAY, M.D.; and
THOMAS STERN, M.D.

A 62-year-old woman complaining of chest pain was brought to the Baptist Memorial Hospital emergency room stuperous, pale, and clammy, with a blood pressure of 70/0 mm Hg and pulse of 145. She responded well to vasopressors, her blood pressure returning to normal. An EKG showed nonspecific ST-T changes. As she had been taking several drugs, the differential diagnosis was myocardial infarction versus drug reaction. She was heparinized, and did well until the seventh hospital day when she developed abdominal and left flank pain. Her hematocrit, which had been 32% on admission, fell to 13% on the day the pain developed. Her left hemiabdomen was tender and there was a poorly localized firmness in the left flank. Bowel sounds were normal.

When a nasogastric tube was inserted a small amount of bright red blood was aspirated, but this was thought to have been caused by trauma. She had not bled from her rectum, and endoscopy of the esophagus, stomach and duodenum was normal.

A CAT scan of the abdomen was obtained. Please examine Figs. 1 and 2 and see if you can arrive at the diagnosis.

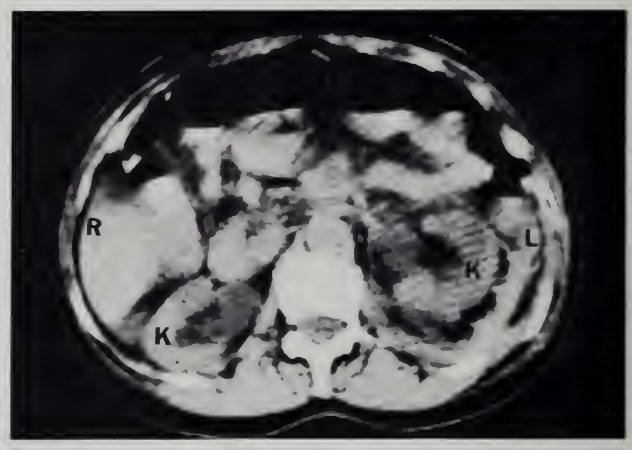


Figure 1. Computerized tomographic cut at the level of the midkidneys. Note the mass effect posterior to the left kidney (K = kidney, R = right, L = left).

Discussion

Note in Fig. 1 that the right kidney abuts the posterior abdominal wall but that the left kidney is displaced anteriorly by a mass that is of approximate soft tissue density. In Fig. 2, the iliopsoas muscle on the right is distinctly defined; the one on the left is ill-defined. Note also a mass effect anterior and posterolateral to this muscle on the left. These mass effects were, apparently, the result of retroperitoneal hemorrhage. The patient had no evidence of gastrointestinal bleeding, but she had been taking heparin. The exact site of bleeding was not discovered.

She was transfused and the heparin discontinued. She responded well to this therapy and was discharged 11 days later in good condition. A barium enema prior to discharge was normal. The cause of her shock on admission was not determined.

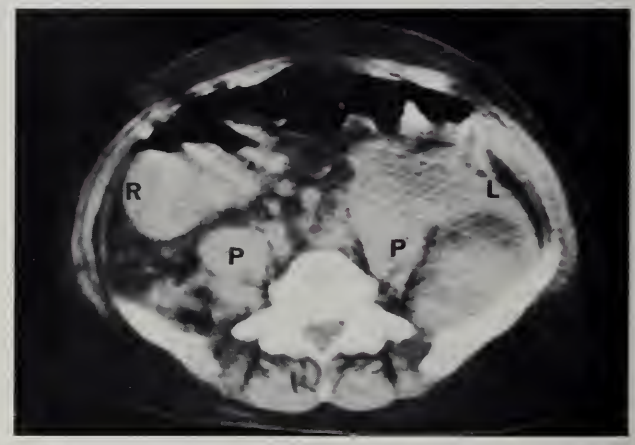


Figure 2. Cut below the level of the kidneys. Note mass effect anterior and posterolateral to the iliopsoas muscle (P = iliopsoas, R = right, L = left).

FINAL DIAGNOSIS: Retroperitoneal hematoma.

From the Departments of Radiology and Cardiology, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146.

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 42-year-old man was admitted for evaluation of severe chest pain. A coronary arteriogram carried out nine months previously showed tight narrowing in the right coronary artery with mild narrowing in the anterior descending coronary artery. On the day of admission he had severe, crushing substernal pain and went to a hospital emergency room, where electrocardiogram revealed acute inferior wall myocardial infarction. Because he had an abrupt episode f ventricular fibrillation, he was defibrillated and transferred to St. Thomas Hospital. Cardiac catheterization carried out as an emergency disclosed complete occlusion in the mid-right coronary artery. Streptokinase was infused in the right coronary artery at 2,000 U/min for two hours but the artery failed to open. The patient was placed in the coronary care unit and treated with an intravenous nitroglycerin drip with resolution of his pain. The following day a rhythm strip was obtained (Fig. 1). (The rhythm strip is a modified V_5 lead. The strips are continuous.)

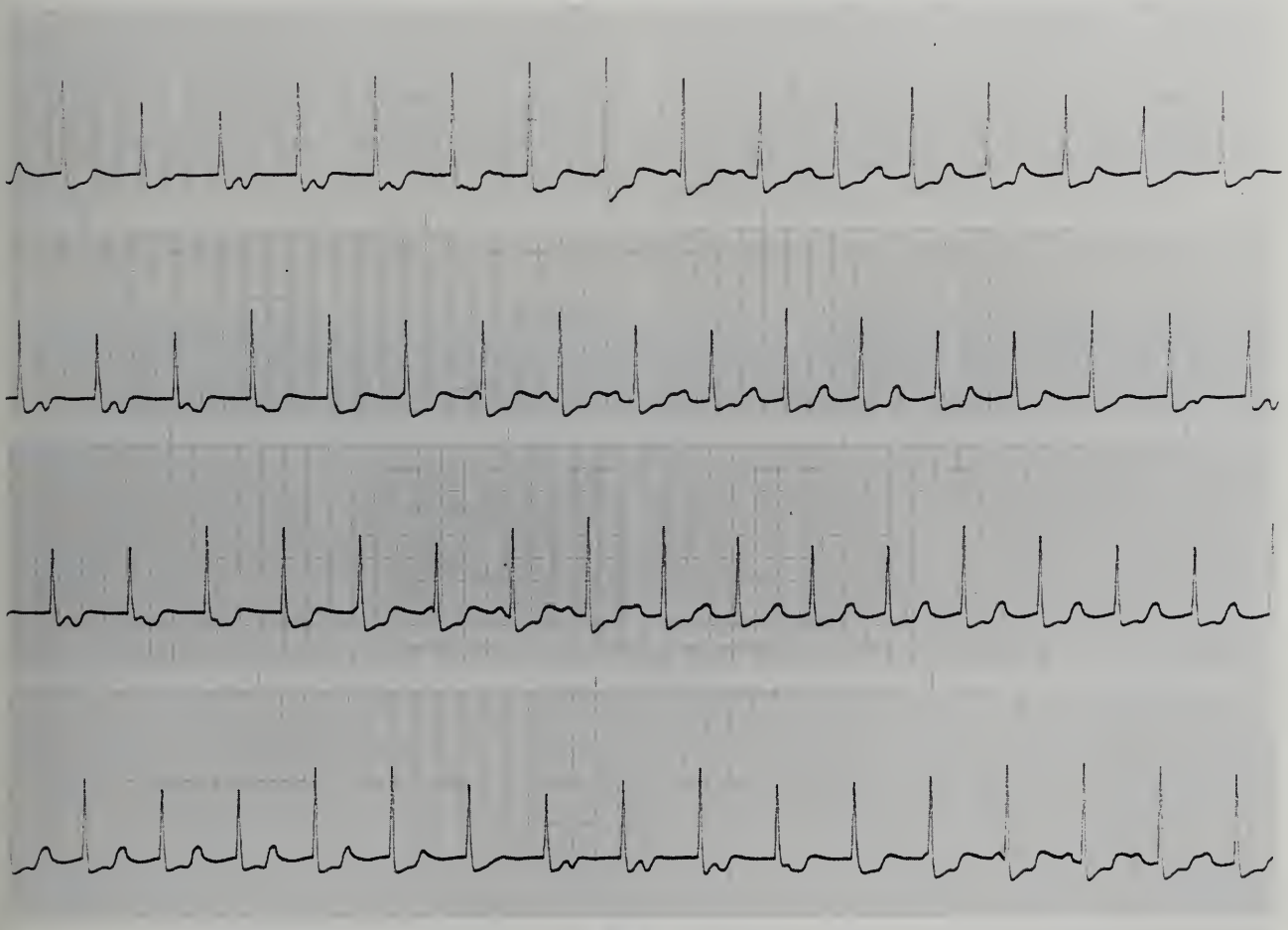


Figure 1

Discussion

R wave amplitude variation appears to be cyclical and is probably due to respiration. The RR interval is regular with a rate of 87/min. The P waves are independent of the QRS complexes and can be seen to "march through" ventricular depolarization. P waves are easily seen following the QRS complex in the second, third, fourth, and fifth beats of the top strip but by the sixth beat began to precede the QRS complex by progressively longer intervals. The P wave never re-

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

sults in ventricular capture and the RR interval is uninterrupted. The atrial rate is 95/min and is quite independent of the ventricular rate.

Dissociation of atrial and ventricular rates may be due to AV block or to usurption of pacemaking activity by a site below the atrium. In this case the atrial rate is faster.

The relatively rapid rate of ventricular depolarization and the narrow complex suggests the possibility of AV junctional tachycardia. AV junctional rhythms are commonly classified as tachycardia if the rate of impulse formation is faster than 70/min. AV junctional rhythms commonly result in retrograde depolarization of the atrium. Obviously, AV dissociation does not exist if an AV junctional focus results in atrial depolarization. On the occasions ventricular capture might be expected, it does not occur. The "complete" AV dissociation in this tracing is secondary to antegrade and retrograde AV block.

The setting in which this dysrhythmia occurs suggests that it represents accelerated idioventricular rhythm. Although the QRS complex is not notably widened, it is now well known that beats of ventricular origin may have normal QRS duration.[1] Accelerated idioventricular rhythm occurs commonly in the early hospital phase of acute infarction, and may be more frequent with inferior than with anterior infarction.[2] Although there appears to be an increased incidence of rapid ventricular tachycardia in patients with accelerated idioventricular rhythm, hospital mortality and the incidence of ventricular fibrillation has not been shown to be increased with this dysrhythmia.[3] Accelerated idioventricular rhythm is commonly associated with "complete" AV dissociation.

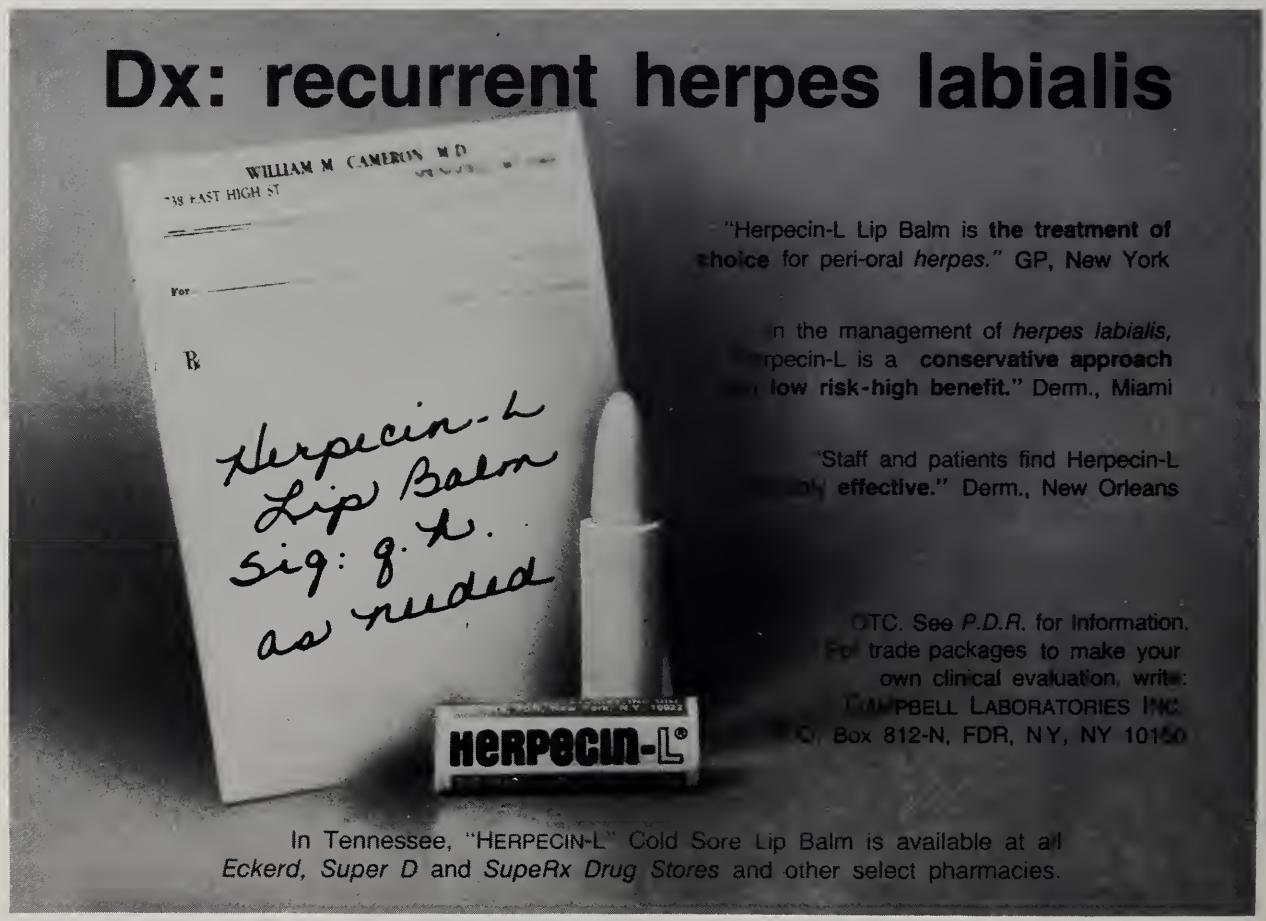
CONCLUSION: "Complete" AV dissociation due to accelerated idioventricular rhythm.

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The Development and Implementation of a State-Wide Prenatal Program for Low Income Women

PAULINE S. McINTYRE, R.N.

Low birth weight (less than 2,500 gm) is one of the most important predictors for risk of death in infancy, and almost one-half of all infant deaths in the United States occur in low birth weight babies. In addition, physical and mental handicaps are about twice as frequent among the low birth weight survivors as in infants of normal birth weight. Two of the factors most associated with low birth weight are lack of prenatal care and young maternal age, since in many instances the mother is not of sufficient biological maturity to meet the demands of pregnancy.

Although early and appropriate prenatal care is a key factor in improving pregnancy outcome, many women in Tennessee do not receive this type of care. In 1980, of 69,097 live births in our state, 16,234 mothers (23.5%) did not begin care until the second or third trimester. A large proportion of these women are already at high risk because of age, race, or socioeconomic factors. Recognizing the great need for an improved maternal health care delivery system, the Tennessee Department of Public Health (TDPH) proposes to develop and implement a statewide prenatal care program.

Prior to 1976, there was no clearly identified prenatal program within the TDPH, and no specific funding was available. The few counties providing prenatal services had programs initiated at the local level, usually through interest and motivation of the local private medical community. Private and public health care providers worked closely in an effort to meet the health needs of low income women.

In 1976, Tennessee was identified by the Department of Health, Education and Welfare as one of the 13 states contributing excessively to the nation's infant mortality. As a result, Tennessee, asked to develop a system of services to improve the outcome of pregnancies within the state, responded by developing and implementing a five-year plan for the provision of prenatal care to compliment and expand existing services. With federal funding, model projects were implemented in areas of greatest need as determined by infant mortality and morbidity statistics. Services provided through these model projects included screening and diagnosis (with special emphasis on detection of high risk factors), prenatal health care management, nutritional guidance, social services, counseling and education, outreach, referral, and follow-up mechanisms. To insure the provision of appropriate consultation, referral, intrapartum care, and high risk obstetrical management, cooperative relationships were developed between TDPH and local providers, hospitals, and high risk perinatal care centers.

In May, 1981, an independent evaluation of the six federally funded prenatal projects in Tennessee was undertaken. This evaluation focused on the following objectives identified by Public Health policymakers, managers and staff: (1) providing prenatal services, (2) gaining and holding the support of the medical community, (3) increasing the numbers initiating prenatal care in their first trimester of pregnancy, (4) reducing the numbers of low birth weight infants, and (5) reducing infant mortality rates.

The results of the evaluation indicate that the TDPH projects have achieved objectives numbers 1, 4 and 5. Some projects have been very successful in securing the support of the medical community, but projects have been less successful in meeting the objective of at least 50% of the TDPH's patients entering prenatal care in the first trimester of pregnancy. (As a consequence, this objective will receive special attention in the

From the Tennessee Department of Public Health, R. S. Gass State Office Bldg., Ben Allen Road, Nashville, TN 37216.

expanded prenatal program.) The overall conclusion of the evaluation is that the prenatal services program is successful in reducing low weight births among the women served. The evaluator makes a number of suggestions about the management of an expanded prenatal services program in order to secure maximum benefit from a service that has been shown to be effectively and efficiently operated by the TDPH.

In October, 1980, Governor Lamar Alexander established a task force to study the causes and prevention of mental retardation. The results of this task force's efforts, published in September, 1981, and entitled "Tomorrow's Child," stated, "The incidence of mental retardation can be reduced through early identification and management of high risk conditions. A mother who is given no prenatal care is three times more likely to have a low birth weight baby (under 5.5 lb) than a mother with adequate prenatal care." The report further states that "All pregnant women should have access to quality prenatal care."

In July, 1982, based on the positive impact of the federally funded pilot prenatal programs, together with the recommendations from the Governor's Task Force on the Prevention of Mental Retardation, the State of Tennessee appropriated funds to expand services so as to insure the availability and accessibility of high quality prenatal care in all 95 counties. The TDPH, with the help of private physicians and hospitals, as well as the four tertiary-level perinatal centers, has developed a plan to meet this legislative objective, the overall goal being to provide prenatal services for pregnant women who otherwise would not have access to such care. Major objectives are to promote early initiation of prenatal care and improve the pregnancy outcome in terms of infant mortality and morbidity. These objectives provide the primary focus for planning, implementation, and evaluation of the program.

Since local needs and resources vary significantly throughout the state, a flexible approach to implementation was required. While the most common service delivery model is composed of clinical and educational services in a local public health department (with a variety of contractual agreements with private physicians to assure continuity of care) several other models are being developed. For example: in Washington County the prenatal clinic is held in the Johnson City Medical Center Hospital with Public Health staff providing nutrition, education and social services; in McMinn County a private nonprofit primary care center will provide prenatal and delivery services to indigent patients in cooperation with four county health departments; in Warren County private physicians will provide prenatal services, with an emphasis on education and outreach services in coordination with the local health department; and in Dickson County, services will be provided through a private group practice, with health department nursing, clinical, nutrition, and education staff working with the physicians.

In addition to clinical and educational services provided to program patients, a statewide community education effort will also be established in order to assure that all women of child-bearing age in Tennessee understand the value of early prenatal care and know how to gain access to such care. Activities will include radio and television public service announcements, the distribution of pamphlets, posters and billboards, and presentations to community, church and school groups. Whenever possible, using materials and resources developed by other agencies, program staff will provide technical assistance to groups across the state in developing community resources.

The success of the TDPH's statewide prenatal program depends upon the establishment of close working relationships with private health care providers. Active participation of private physicians, regional perinatal centers, and various medical organizations was solicited for the development of the prenatal plan. Local providers are invited to provide consultation for staff of the local health departments, management of medium risk obstetric patients, and delivery of low and medium risk women. Linkages with the high risk perinatal centers will be developed to assure appropriate medical management of high risk patients.

In many Tennessee communities private medical practitioners are already working cooperatively with public health personnel toward a common goal of decreasing maternal and neonatal mortality and morbidity. We expect that the proposed statewide prenatal program will provide an opportunity for more cooperation to improve the outcome of pregnancy in their communities.

For more information, please contact Pauline S. McIntyre, R.N., C.N.M., Director, Prenatal Services, R. S. Gass State Office Bldg., Ben Allen Road, Nashville, TN 37216.

president's page



George W. Holcomb, Jr.

It's Legislative Time on Capitol Hill

I realize that legislative issues on the national level have occupied our thoughts and efforts this year as never before. To be sure, each of us is directly affected by decisions made by Congress as well as governmental agencies and their importance should not be underestimated. But no less important are decisions which will be made regarding medicine by the current session of the Tennessee General Assembly.

Issues likely to be debated involve "look alike" drugs and imitation controlled substances as well as the use of therapeutic drugs by optometrists. Legislation to support the expansion of chiropractic services to include hospital privileges and the use of State Laboratory testing facilities will probably be considered. Certain to come before the legislature with strong support is the midwives' desire for hospital staff appointments. The effect of cost versus the public benefit of licensing x-ray technologists, pulmonary therapists, emergency medical technologists and other allied health personnel will be an important deliberation. Of primary concern is the possibility that the present qualifications for Commissioner of Public Health might be changed by legislative action to allow a lay person to assume this important position. The TMA initially supported establishment of these qualifications and will oppose any alteration of this statute.

The TMA Legislative Committee members and chairman, James W. Hays, M.D., have been busily engaged in evaluating the effect these and other proposals will have on the practice of medicine and the quality of care in hospitals and in our offices. If you have questions regarding any issue, please contact members of this committee and express your views. I urge each of you to read the TMA Newsletter and other communications regularly so that you will be aware of current proposals in the medical field. These issues affect and are critical to the care of our fellow Tennesseans. I encourage you to discuss them with your neighbors, patients and community leaders so that they may understand the true impact these issues will have on medical treatment.

George Holcomb Jr MD

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FEBRUARY, 1983

editorials

Administrative Finagling: Woes of the Public Weal

For more than ten years this *Journal* has carried a monthly column written by a member of the Tennessee Department of Public Health, detailing the Department's various programs and activities. These hundred-odd reports present an impressive record of service to the people of Tennessee. It has been possible because the Department has been left to function with little interference from the political system.

The history of public health efforts in Tennessee makes interesting reading, but I will burden you with only a little of it. Tennessee established a State Board of Health in 1877 with Dr. J. Berrien Lindsley as its first secretary, the 14th such board to be organized in the nation, following the first by only eight years. The Board had neither funding nor executive capacity, and was simply advisory to the legislature. It was both reorganized and funded in 1897, with appointment of its members being placed in the hands of the governor. The Board consisted of three physicians, and the Secretary of Agriculture as an ex-officio member.

The state government was reorganized by an act of the General Assembly in 1923; it centered in eight administrative departments, one of them the State Department of Public Health, of which Dr. C. B. Crittenden was the first Commissioner. Following his resignation the following year, Dr. E. L. Bishop, who had been with the Department since 1916, became Commissioner. In the ensuing 60 years, during which a multitude of governors have paraded through the State House, there have been only three additional Commissioners of Health—Drs. Carter Williams, R. H. Hutcheson, and Eugene Fowinkle.

These able and dedicated public servants have not had an easy time of it. The function of the original Board was primarily to follow and prevent epidemics, though preventive medicine was a dimly perceived concept at that time. The first organized and constructive effort was carried out against the hookworm by Dr. Olin West, then Assistant Secretary of the Board, in the years, following 1910. The foundation of a bacteriology laboratory under Dr. William Litterer, who served the state without pay, and later of immunization and tuberculosis hospitalization programs, among others, brought the state into direct conflict with the practicing physicians, who considered the programs an infringement of their turf rights. Dr. Kampmeier sums up the conflict succinctly:

> The meeting of entrenched private practice with the application of modern medicine to community health and the citizenry—this philosophy of laissez faire versus organized regulation, or respectively, older men versus younger men, produced sparks and often flared into flames. The confrontations of the 1920s and 1930s were marked by antagonism to public health by many in private practice. Health officers were seen as competitors in the days of the depression and financial hardships.[1]

To deal with these problems, both real and perceived, the Tennessee Medical Association formed a number of standing and ad hoc committees, some of which still survive. That a relationship so permanently potentially explosive has proceeded over the years as smoothly as it has can be attributed to a considerable extent to the high caliber of the commissioners and their long tenure. Again quoting Dr. Kampmeier:

> Leaders of stature in the Association and successively, Drs. E. L. Bishop, W. C. Williams, and R. H. Hutcheson, commissioners of public health, overcame antagonisms with understanding to set the stage for continued productive cooperation during the remainder of this half century. In its report of 1936, the [TMA] Board of Trustees in emphasizing the responsibility of the profession in the movement for better health commented now that a Board of Health has been established and the Department of Public Health been reorganized, that "so far harmony and progress are evident. It is the duty of everyone to see that this movement gain momentum."

Change, as I and many others have observed before, is not necessarily progress, and is indeed often destructive. Replacement of the old Board of Health with the present Department of Public Health met the needs of expanding knowledge and consequent public responsibility for the health of Tennessee's people. To meet that responsibility, various schools of public health were formed, granting the degree of Master of Public Health (MPH), so that physicians could become knowledgeable in the many facets of what is now a recognized specialty in medicine.

The Commissioner of Health has not always been perceived by Medicine as its friend, and in fact the relationship is adversarial as often as not. Nevertheless, as a physician with an MPH degree, the commissioner is fitted to understand both the medical needs of the public and the wishes, desires, and needs of physicians. Because of this background he has been in a position to negotiate between the administration and organized medicine through the Association's Governmental Medical Services Committee, with members on the Public Health Council, and informally with his peers in medicine. Because of his background and long tenure, every one of Tennessee's commissioners has been nationally recognized for his excellence.

I have mercifully suppressed the name of its author, but the statement that health is too important to be left to the medical profession has apparently been taken to heart by the present administration. With the easing out of the current Commissioner of Health, the first step in dismantling a superb, nationally recognized department of public health has been taken by a governor who should know better. I am not prepared at this point to discuss the merits, pro or con, of transferring environmental health or Medicaid to other departments, but history confirms the wisdom of having a commissioner who holds both the MD and MPH degrees. Apparently as a power move, to gain more control, the Governor is in the process of asking the legislature to change the statute so that the commissioner need be neither. If they do, the public will be poorly served, and its health suffer.

J.B.T.

REFERENCE

1. Kampmeier RH: *History of the Tennessee Medical Association, 1930-1980.* Nashville, Tennessee Medical Association, 1981.

Night Blow

Gaunt fingers clutch
At sodden skies
Rouged by lights below.
A gust,
A snap, a crash—
Once nimble fingers now
Caress the earth, and turn
To dust.

J.B.T.

On Contemplating a Non-Season: A Non-Editorial

Thanksgiving is over and Christmas decorations are up all around town. It is December first, and we have a whole winter ahead, which will not officially start for another three weeks. The wooly bears to the contrary notwithstanding, the weather bureau says our winter will be warmer than usual, and maybe wetter. Sure enough, as I drove to work through the rainy dark this morning in the sixty degree temperature, it was tempting to take the weather bureau's word for it. The cold, they say, will stay in the Great Plains and the Northern Rockies. They say forget the wooly bears. Still, I have always had the distinct impression that my grandmother's corns were a lot better indicators of the weather than the

weather bureau's gadgets, and the wooly bears have been at it a lot longer than either of them. By the time you read this, winter will be on the way out, and you will know who (or which) was right.

This is a poor way to start a morning. To begin with, the rain was pattering on the window when I woke up, and it was not quite time to hop out of bed. I had been in the same position for so long it would have been nice to turn over and readjust my crinkles, but I knew that would never do if I wanted to get started at all, and so I took my crinkles to the bathroom to let them fall out there. It was a case of literally getting out of bed on the wrong side. Then I got to thinking that our deadline is approaching, and it was beginning to look as if there might not be any editorials this month. It used to be that the National News was good for a couple, but we have had to move our deadline up to where that news just barely makes it into the *Journal* at all—in fact, it's usually late. That leaves no time for cogitation. On top of that, we got notice the other day that since Congress had gone home, there was no news in Washington and so the AMA's Washington Office wouldn't have any column for us for December. (A likely story. It reminds me of the time I wound up in Greensboro, N.C. in the Army Air Force Overseas Replacement Depot (AAFORD), or "Reple-Deple," as it was affectionately known, in company with 39 other medical officers, on a snowy night a few days before Christmas. When at last the personnel officer became coherent, he allowed as how they weren't expecting us for a couple of weeks, and that it appeared the SOBs in the Pentagon were simply clearing *their* desks off for the holidays. Sure enough, we were a month shipping out.)

It's not that nothing is happening. Thanksgiving Day reminded us—or should have—of all we have to be thankful for, even though the columns on the editorial page of the morning newspaper that day took it upon themselves to make it a time for reciting all the reasons we had for *not* being thankful. Like the wooly bears and the weathermen, some college football teams won and some lost in traditional rivalries on the following Saturday. The outcome is seldom gratifying for me, but this year it was. For those who care (apparently not nearly as many as the players had counted on) the Sunday airways are again cluttered with flying pigskin. Nuke and anti-nuke arguments abound, terrorism and unemployment flourish, and interest rates fall and rise. Lots of Christmas shoppers are out, but buying and selling are, they say, meagre.

And lest we forget, in all the hustle and bustle of the socioeconomic aspects of medicine and otherwise that weigh so heavily on us, people still get sick, and some make it and some don't.

J.B.T.

Sic Transit . . .

I hope that by now you are accustomed to my use in this column of the present tense in reference to things that occurred some time before you can read about them here. This derives from the time constraints faced in publication. It means you don't get the news fresh, but at the same time it allows me to reflect on things and sometimes synthesize a whole bunch of disparate items into something like an orderly whole. You will pardon me, therefore, I hope, when I use "this year" in this piece to mean 1982, though I realize for you it is already well into 1983. In recognition of that, I'll toss you a bone:

"Happy Valentine's Day!"

So much for that. Now, down to business.

The rest of the title of this piece is, as I'm sure you are aware, . . . *gloria mundi.* For the moment I am not so much interested in how the world's glory passes, but what it consists of, or perhaps more precisely, on whom it is bestowed. There have been some notable passings this year; perhaps you would think of the ones I'll mention, and perhaps not. Maybe some others stick more prominently in your mind. At least three more or less local eras ended this year, two, with which I was more closely associated, at Vanderbilt. Alexander Heard retired after 20 years as the University's Chancellor, and Bill Scott terminated an almost unprecedented 30-year tenure as head of the Department of Surgery. Both of these events were noted with appropriate fanfare.

Even more widely celebrated was the end of a remarkable career in coaching, as "The Bear" stepped down after 25 years as head football coach at the University of Alabama, having won (euphemistically, of course, as it was the teams he coached that actually won) over 300 football games, more than any other coach in history. One hesitates to say any record will never be equalled, but in this case, at least, no star is visible on the horizon, as few men have such a combination of

talent, persistence, temperament, and longevity as Paul "Bear" Bryant. Few coaches (or anyone else, for that matter) are willing to encounter more than one, or at most a couple, of hangings in effigy, which is not uncommon after a loss or two for coaches in schools accustomed to winning. Students and alumni quickly forget why it is they are accustomed to winning.

These have been long and remarkable careers, worthy of plaudit and emulation. I wondered why, then, in a poll taken somewhere recently of eighth through twelfth graders about who their heroes were, Alan Alda came out first. Though I don't recall who most of the also-rans were, the only hero-type I saw mentioned was Neil Armstrong—hero-type, that is, to me, or even according to definition. This is certainly not to say that Alan Alda is not a fine actor and comedian—but *hero?* I had to conclude that the students, confused about reality—certainly an understandable situation when you consider how much time most of them spend these days in the land of make believe—really meant Hawkeye of the M*A*S*H unit, who is maybe more the hero type. The media do not help the situation when they give the sickness and death of country-music singer Marty Robbins coverage equalled only by that for trips into outer space.

The dictionary defines *hero* as "a man distinguished for valor, fortitude, or bold enterprise; anyone regarded as having displayed great courage or exceptionally noble or manly qualities, or who has done a deed or deeds showing him to possess such qualities." Since it takes all kinds to make a world, I suppose many types get viewed as heroes by some. I suspect I have pursued this about as far as I ought.

Of all those who make history, few are remembered. Perhaps those few contributed more than the others, but in many instances they have simply had a better press agent. Some of them, though, were real heroes in the best sense, and some of those were in the medical profession. Many were unsung, as is so often the case. In this issue we have the first of a series of three papers read at a symposium before the Nashville Academy of Medicine. Although they deal with Nashville medicine, that frequently involved indirectly and sometimes even directly the whole state. Among the lessons this history teaches are that doctors have been fighting it out with entrenched interests and politicians, often with considerable heroism, long before our time, possibly as long as the two have existed together; it teaches that politicians always have the upper hand, and that the politicians are remembered and their opponents usually forgotten.

On the other hand, medicine has continued to survive, and often to flourish, even in the face of adversity and setbacks. While that knowledge may be small comfort in our present crisis and over the short term, it is a legacy worth remembering, and one to pass along, both to the young doctors among us and to our children. Although we cannot foresee the future of medicine—or of anything else, either—we can be sure medicine has a future as long as there is one for the human race; we can also be sure that there will be a place in that future for even the brightest of its members. They need not look elsewhere for fulfillment.

J.B.T.

in memoriam

William T. Fitts, age 95. Died December 5, 1982. Graduate of Vanderbilt University School of Medicine. Member of Consolidated Medical Assembly of West Tennessee.

Bruce D. P'Poole, age 93. Died August 4, 1982. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Alvin B. Rosenbloom, age 76. Died November 18, 1982. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY
Takeshi Ozawa, M.D., Cleveland
Owen C. Taylor, M.D., Cleveland

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE
Harold W. Allen, M.D., Jackson
John R. Holancin, M.D., McKenzie
John M. Jenkins, M.D., Jackson

ROANE-ANDERSON COUNTY MEDICAL SOCIETY
Glen R. Weight, M.D., Oak Ridge

ROBERTSON COUNTY MEDICAL SOCIETY
Tommy M. Crunk M.D., Springfield

SEVIER COUNTY MEDICAL SOCIETY
Glenn E. Jennings, M.D., Gatlinburg

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY
Ervin A. Hire, M.D., Kingsport
Neal A. Jewell, M.D., Bristol

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION
J. Todd Meredith, M.D., Johnson City

TMA Members Receive AMA Physician's Recognition Award

Twenty-nine TMA members qualified for the AMA Physician's Recognition Award during November 1982.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Charles H. Alper, M.D., Chattanooga
Joseph C. Battaile, M.D., Memphis
Najiba A. H. Battaile, M.D., Memphis
Jemison O. Bowers, M.D., Chattanooga
E. Kent Carter, M.D., Kingsport
Joseph C. DeFiore, Jr., M.D., Knoxville
Patricia L. Eachus, M.D., Knoxville
William J. Fidler, Jr., M.D., Memphis
William E. Foree, Jr., M.D., Athens
Waverly S. Green, Jr., M.D., Bristol
Jamshed U. Haq, M.D., Knoxville
Patrick A. Kelley, M.D., Chattanooga
Ronald C. Kelly, M.D., Bristol
Alfred P. Kraus, M.D., Memphis
Samuel S. Lambeth, M.D., Maryville
Arnold W. Malcolm, M.D., Nashville
Michael Allen McAdoo, M.D., Milan
Arnold M. Meirowsky, M.D., Nashville
Paul V. Nolan, M.D., Chattanooga
James R. Noonan, M.D., Dyersburg
Jeffrey C. Roche, M.D., Nashville
Oscar L. Simpson, Jr., M.D., Maryville
Wendell L. Skinner, M.D., Kingsport
Rodrigo V. Tiongson, M.D., Celina
Robert W. Wahl, M.D., Nashville
Raymond H. Webster, M.D., Springfield
Frank L. White, M.D., Memphis
Robert A. Wild, M.D., Knoxville
Glenn E. Wright, M.D., Knoxville

personal news

Alan D. Samuels, M.D., Memphis, has been elected to Fellowship in the American College of Physicians.

The following TMA members have been inducted as Fellows of the American College of Chest Physicians: *Tommy L. Fudge, M.D.*, Memphis; *Southgate W. Green, M.D.*, Knoxville; *Benjamin D. Harnsberger, M.D.*, Lookout Mountain; *A. Clyde Heflin, Jr., M.D.*, Nashville; *Patricio A. Ilabaca, M.D.*, Memphis; *Yune Gill Jeong, M.D., Chattanooga; Richard L. Prager, M.D.*, Nashville; *Samuel G. Robbins, Jr., M.D.*, Memphis; *William L. Russo, M.D.*, Memphis; *G. Philip Schoettle, Jr., M.D.*, Memphis; *Robert P. N. Shearin, M.D.*, Memphis; *Robert E. Ware, M.D.*, Knoxville

national news

From the AMA's Office in Washington, D.C.

FTC Fight Continues

A House win, a Senate loss, and a brilliant defensive maneuver in a House-Senate conference committee marked this month's chapter in the history of medicine's long struggle to overcome the Federal Trade commission's self-asserted statutory authority over physicians and other members of the learned professions.

The House win came early in the month with passage of an amendment by Reps. Thomas Luken (D-OH) and Gary Lee (R-NY) to an FTC authorization bill by a 245-155 vote.

The vote in favor of Luken-Lee followed the defeat of a "compromise" amendment offered by Rep. Broyhill (R-NC) by a 203-195 vote. The Broyhill amendment had been opposed by the American Medical Association and its allies as "worse than the status quo."

AMA Board of Trustees Chairman Joseph F. Boyle, M.D. said the "vote was strong support for aggressive professional self-regulation—and the AMA accepts the responsibility for assuming a leadership role to make that regulation occur."

But the Senate was not to see eye-to-eye with the House. Two weeks later the Senate Appropriations Committee voted 15-14 to support an amendment offered by Sen. Warren Rudman (R-NH) that would permit FTC a jurisdictional role over medicine.

With only two scheduled days left in the lame-duck session, organized medicine's only chance was to raise the issue anew on the Senate floor by attempting to

gain passage of an amendment sponsored by Sen. James J. McClure (R-ID).

But the McClure amendment failed 59-37 in an all night session and at 6:30 a.m. that morning the Senate passed by voice vote the continuing resolution bill (appropriations) with the Rudman amendment that would give FTC statutory authority over state-regulated professions in such areas as boycotts, deceptive practices, and price fixing.

James H. Sammons, M.D., AMA Executive Vice President, expressed the Association's disappointment over the Senate's action and warned that if the FTC "prevails in its fight to gain jurisdiction over the professions, the public will suffer because medical societies will no longer be able to carry out their patient advocacy activities."

The FTC did not prevail. Two days later House members of a House-Senate conference committee refused to accept the Rudman Amendment language and stripped its provisions from the bill thus assuring that nothing in the law specifically gives FTC authority to regulate professionals such as physicians.

"The Congress acted wisely by striking language from the continuing resolution that would have, for the first time, given the Federal Trade Commission the power to regulate America's learned professions, which traditionally have been regulated by the states," said Dr. Sammons. "By rejecting the language proposed by Senator Rudman, the House of Representatives clearly refused to acknowledge FTC's claims to oversee this nation's professionals or their organizations—The American Medical Association now looks forward to a victory in the next Congress when the House and Senate can act to maintain doctors' rights to carry out patient advocacy activities."

Prospective Payment Considered

The AMA has cautioned the Congress to proceed slowly in implementing a system for prospective payment for hospital services.

Joseph F. Boyle, M.D., chairman of the AMA Board of Trustees, told a congressional committee that the AMA supported developing and exploring payment systems for institutions based on "predetermined rates or other payment systems that create incentive for facilities to be more cost-conscious."

He warned, however, that "it would be inappropriate to institute a radical change in the Medicare and Medicaid hospital reimbursement system without assurances that quality care will be maintained."

Dr. Boyle also cautioned against implementing any full-scale prospective payment system "without experimentation and until ongoing projects have been analyzed to determine their effects on costs and quality."

Testifying before the health subcommittee of the House commerce committee, the AMA official urged Congress to "consider not only how much these programs are designed to save in terms of dollars but also what effects they will have in human terms and upon the quality of care that will be available to the American people."

In his testimony, Dr. Boyle emphasized that "decisions made in the near future concerning how hospitals and other providers are reimbursed will have long-range implications on access to and the quality of care for years to come."

Hospitals, through their boards, administrators, and medical staffs, are likely to respond to changes in the reimbursement system to try to maintain access and quality care, he said. If hospitals find they are being under-reimbursed, he continued, likely actions will be shifting costs to other payers, deferring such spending as maintenance (often leading to higher long-term costs), and postponing or eliminating necessary modernization and technological improvements, depriving patients of the highest quality of care.

"In extreme cases, hospitals providing essential care could be forced to close," he warned.

Current data are not adequate to confirm that prospective payment is an appropriate nationwide reimbursement system, Dr. Boyle continued. "We strongly urge that further demonstrations go forward before any attempt is made to radically alter the manner in which payment is made for hospital care."

Lacking, he said, is detailed information about what long-term changes would occur in hospitals under a prospective payment system. "What do we do if the 'incentives' change behavior in a way that cuts costs but also forces elimination of needed services and activities?" he asked. "Considerations such as these are best answered through demonstration projects prior to the nationwide implementation of a new medicare reimbursement system."

Any such program, he went on, should be tested on a limited scale.

"It would be a major mistake to impose a prospective payment system on a nationwide scale unless that process had a successful track record," Dr. Boyle said.

"It is important to determine not only whether there are short-term savings that may be generated by a prospective payment system, but also whether the hospitals will continue to be able to provide quality care."

The physician pointed out that while prospective payment systems could be tailored to achieve cost savings, "the question of side effects . . . must be considered." He quoted a General Accounting Office report earlier this year warning that "there is a point when a reduction in reimbursement could adversely affect access to and/or quality of care for beneficiaries. Also, if the prospective reimbursement does not apply to all payers, a facility can have an incentive to shift costs to non-covered payers."

Dr. Boyle emphasized that a proposal that did not cover all payers nationwide might lead to massive cost shifting. Further, he warned, "an inadequate reimbursement system could foster a two-tiered system of health care in this country, with one level of care for private-pay patients and the other level of care for public patients."

If Medicare and Medicaid fail to bear their fair share of financial responsibility "the potential would exist for some hospitals to discourage acceptance of public patients. Those hospitals with large public patient loads

would find themselves with increasing difficulty in maintaining financial viability," he said.

Other questions that arise, the physician said, include:

- Would all costs of hospitals be covered adequately, including such costs as teaching programs and capital expenditure?
- Would there be any adjustments and appeals mechanism?
- What level of access to care would be acceptable?
- Would care have to be rationed?
- How would hospitals be encouraged to make expenditures to improve technology?
- Would the system make adjustments for hospitals that already have undertaken cost-saving measures and are operating efficiently?

"Questions such as these must be used to measure any system of prospective payment," he said, "and they should be answered prior to national implementation of any reimbursement system."

announcements

CALENDAR OF MEETINGS

NATIONAL

March 4-6	American Medical Student Association—Bond Court Hotel, Cleveland
March 5-12	American Society of Contemporary Ophthalmology and American Society of Contemporary Medicine and Surgery—Sheraton Bal Harbour Hotel, Bal Harbour, Fla.
March 5-12	Canadian American Medical Dental Association—The Lodge, Vail, Colo.
March 6-10	Society of Toxicology—Caesar's Palace, Las Vegas
March 6-11	American Society of Microbiology—New Orleans
March 8	4th Annual Kareem B. Minhas Memorial Lectureship in Pediatric Cardiology (sponsored by Univ. of Louisville)—Kosair-Children's Hospital, Louisville
March 9-11	American Society for Clinical Pharmacology and Therapeutics—Town & Country, San Diego
March 9-13	American College of Nuclear Physicians—Cerromar Beach Hotel, Puerto Rico
March 10-13	American Society for Head & Neck Surgery—Canyon, Palm Springs, Nev.
March 10-15	American Academy of Orthopedic Surgeons—Convention Center, Anaheim, Calif.
March 13-18	Mammoth Mountain Emergency Medicine Ski Conference (sponsored by Medical Conferences, Inc.)—Mammoth Lakes, Calif.
March 14-18	Midwinter Diagnostic Radiology Conference (sponsored by Loyola Univ. of Chicago)—Kapalua Bay Hotel, Maui, Hawaii
March 16	Association for the Advancement of Psychoanalysis—International Center, New York City
March 19-22	American Society of Abdominal Surgeons—National Study Center for CME, Tampa, Fla.
March 19-23	American Academy of Allergy—Diplomat Hotel, Hollywood, Fla.
March 20-24	American College of Cardiology—New Orleans
March 20-25	Association of University Radiologists—Hilton Hotel, Mobile, Ala.
March 23-24	Association for the Care of Asthma—Diplomat Hotel, Hollywood, Fla.
March 24-27	American Psychosomatic Society—Barbizon Plaza, New York City
March 24-27	American Society of Regional Anesthesia—Contemporary, Lake Buena Vista, Fla.
April 9-16	American Academy of Otolaryngology—Head and Neck Surgery—Fairmont Hotel, New Orleans.
April 14-20	American Medical Society of Alcoholism—Hyatt Regency, Houston
April 15-17	Society for Pediatric Radiology—Hyatt Regency, Atlanta
April 16-17	Southeastern Dermatological Association—New Orleans
April 16-20	American Fracture Association—Holiday Surfside Inn, Clearwater Beach, Fla.
April 17-21	American Urological Association—Las Vegas Hilton Hotel
April 18-29	24th Postgraduate Institute for Pathologists in Clinical Cytopathology—Johns Hopkins University and Hospital, Baltimore
April 21-23	American Society of Law and Medicine—Hilton, Washington, D.C.
April 24-27	Society of Cardiovascular Anesthesiologists—Sheraton, San Diego
April 24-28	American Association of Neurological Surgeons—Sheraton, Washington, D.C.
April 24-29	American Occupational Medical Association—Hilton, Washington, D.C.
April 25-27	Southeastern Surgical Congress—Marriott Downtown, Atlanta
April 27-May 1	American Psychoanalytic Association—Sheraton, Philadelphia
April 29-May 1	American College of Nuclear Medicine—Amfac Hotel, Dallas
April 29-May 1	American Society for Adolescent Psychiatry—Barbizon Plaza, New York
April 29-May 2	American Society for Clinical Investigation—Sheraton, Washington, D.C.
April 29-May 2	Association of American Physicians—Sheraton, Washington, D.C.

STATE

April 13-16	Tennessee Medical Association 148th Annual Meeting—Opryland Hotel, Nashville

TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Steven Schenker, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	Zell A. McGee, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	H. William Scott, Jr., M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

March 4-6	Benjamin Howard Robbins Memorial Lecture—Anesthesia Update
March 18	Pain Management Conference (7 hours)
March 28-April 1	Annual James C. Overall Visiting Professor in Pediatrics
April 7	Annual Frank H. Luton Lecture in Psychiatry (1 hour)
April 9	Scientific Sessions, Tennessee Chapter, American Diabetes Association (7 hours)
April 22-23	Update in Gynecological Oncology and the Conrad Julian Memorial Lecture in Gynecologic Oncology (10 hours)
April 29-30	Annual Barney Brooks Lecture in Surgery and H. William Scott Society, Scientific Sessions
May 18-19	Annual Seminar in Psychiatry (10 hours)
May 26-28	Diagnostic Sonography Update: 1983 (20 hours)
June 4-5	Ophthalmology Residents Day
June 9-10	Controversies in Cardiology: 1983—Annual Scientific Sessions, Tennessee Heart Association (10 hours)
July 7-9	Vanderbilt/Bowman-Gray Fifth Annual Mountain Meeting, Internal Medicine—Asheville, N.C. (12 hours)
July 19-23	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

March 3-5	Pituitary Disorder
March 10-12	Practice Pertinent Psychiatry for Primary Care Physicians
March 18	Serious Gram Negative Infections
March 19	Emergency Medicine Symposium
March 20-25	XVI Annual Review Course for the Family Physician
April 8	Epilepsy
April 22-23	Clinical Hypnosis
May 11-14	Symposium on Reconstructive Surgery of the Nose and Eye Enternal (Open) Rhinoplasty Blepharoplasty Symposium
June 5-9	ECG Workshop—Pickwick State Park
June 29-July 2	Family Practice Update—Opryland Hotel, Nashville
July 31-Aug. 4	"Hands On" Practical Skills Workshop—Paris Landing State Park
Aug. 17-20	Cardiology Update—Gatlinburg
Sept. 14-15	Diabetes Mellitus: Basic and Clinical
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Nov. 29-Dec. 1	Norfleet Forum

Knoxville

March 5	Exercise & Rehabilitation
April 28-30	VI Annual Family Practice Update—Gatlinburg
May 20-21	Closed Intramedullary Nailing
June 2-4	Practical Otolaryngology for the Primary Care Physician—Gatlinburg
June 16-18	Great Smoky Mountain Pediatric Seminar—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

EAST TENNESSEE BAPTIST HOSPITAL

April 13-15 1st Annual Southeast Regional Gerontology Conference—Hyatt Regency, Knoxville.

For information contact Sheila Gordon, R.N., Asst. Dir., Staff Development and Training, East Tennessee Baptist Hospital, P. O. Box 1788, Knoxville, TN 37901, Tel. (615) 632-5061.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

March 3-4	Pituitary-Brain (co-sponsored with University of Tennessee)
March 10-12	Practice Pertinent Psychiatry for the Primary Care Physician (co-sponsored with University of Tennessee)
March 18	Colorectal Cancer (co-sponsored with Sloan-Kettering Cancer Center)
April 7-9	Gynecological Surgery
April 21-22	Spiritual Aspects of Suffering and Pain
May 5-6	Nutritional Support
May 19-20	Infectious Diseases for the Clinician
May 21	Nuclear Medicine
May 27-29	Anesthesia Update
Sept. 30-Oct. 1	Pulmonary Update
Oct. 3-4	Recent Advances in Cardiovascular Surgery
Oct. 27-28	Liver Disease—From Prevention to Transplantation (co-sponsored with the University of Tennessee)

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

IN SURROUNDING STATES

UNIVERSITY OF MISSISSIPPI

March 10-12 10th Annual Surgical Forum—Holiday Inn Downtown, Jackson, Miss. *Credit:* 22 hours AMA Category 1. *Fee:* $275.

For information contact Continuing Education, University of Mississippi Medical Center, 2500 N. State St., Jackson, MS 39216.

OF SPECIAL INTEREST

AMERICAN CANCER SOCIETY

May 19-21 National Conference on Breast Cancer, 1983—Boston Sheraton Hotel, Boston. *Credit:* 16.5 hours AMA Category 1.

For information contact Nicholas G. Bottiglieri, M.D., Breast Cancer Conference, American Cancer Society, 777 Third Ave., New York, NY 10017, Tel. (212) 371-2900.

Computed Tomographic Scanning of the Brain

Computed tomography (CT) is a remarkable new development in radiographic imaging which, in only eight years, has transformed the diagnosis and much of the management of structural disease of the brain and its surrounding tissue.

Presentation by experts from a variety of fields indicated that CT is a safe, accurate, and powerful tool in the primary diagnosis of, among other conditions, brain tumors, brain hemorrhages, effects of major head injury, and certain infections of the brain. Given its speed, accuracy, and low radiation dosage, CT has displaced a number of other radiologic diagnostic procedures, many of which are, in comparison, more uncomfortable, more dangerous, and more costly to the patient.

The panel considered the geographic distribution of CT scanners and the current patterns of diagnostic usage. Two important considerations emerged. It appears that in the United States today, CT may not be sufficiently available for the public to derive the full benefit of this diagnostic tool. Evidence points to an insufficient number of instruments in several large metropolitan areas, in medically underserved areas, and in some sparsely populated regions where the prevalence of head trauma is high. In some instances, however, the indiscriminate use of CT has occurred in patients unlikely to have structural disease, resulting in displacement of patients for whom this technology is critical. Accordingly, this consensus report suggests appropriate criteria for the use of CT in present medical practice.

What are the indications for employing CT scanning as a primary or secondary diagnostic tool for intracranial lesions?

CT is the most useful diagnostic study available for a number of intracranial disorders. Its efficacy, particularly in the detection of traumatic and neoplastic lesions, is well established. There is evidence that CT has been a major factor in decreasing morbidity and mortality, especially in severe head injury and brain abscess. The presence of the former or suspicion of the latter present clear indications for CT.

CT detection of intracranial tumors is now so well established that the suspicion of any intracranial mass lesion from history or neurological examination constitutes a strong indication for this procedure. Spontaneous intracranial hemorrhage is also readily detected by CT and often represents another prime indication. Suspicion of arteriovenous malformation, hydrocephalus, herpes encephalitis, parasitic infestations, and progressive degenerative diseases of the brain generally constitutes an indication for CT.

For most cerebral vascular ischemic events, including transient ischemic attacks (TIAs), CT may not be required to make the diagnosis. The procedure, if available, is a helpful adjunct when using anticoagulant therapy. CT will clearly distinguish infarction from hemorrhage when that distinction must be made. CT will also detect lesions such as meningiomas or subdural hematomas. This discrimination is particularly important in the small percentage of patients with these conditions who have transient symptoms similar to TIA.

CT should not be employed as a routine screening procedure when a low diagnostic yield is anticipated. There is little indication for the procedure following minor head trauma, simple or periodic headache, syncope, or dizziness unattended by other neurological symptoms or signs. Most patients with headache should be considered for CT scanning only if the symptom is severe, constant, unusual, or associated with abnormal neurological signs.

In adults with seizure disorders the indications are variable. CT is essential when seeking a potential structural cause of complex partial (temporal lobe/psychomotor) or focal seizures and is indicated in any adult with a recent onset of seizures. The finding of an obvious clinical cause for seizures such as a withdrawal state or metabolic disturbance usually obviates the need for CT. If seizures remain uncontrolled and the initial CT was normal, the scan should be repeated at appropriate intervals.

In infants and children, CT is useful as a primary diagnostic tool in the evaluation of intracranial hemorrhage and mass lesions. CT may be used to evaluate patients postoperatively and those who have received radiotherapy.

In children, CT should be considered a primary diagnostic modality in evaluation of severe head trauma, other causes of increased intracranial pressure, undiagnosed coma, progressive focal neurological signs or symptoms, megalocephaly, and selected neurocutaneous syndromes. CT will also detect major congenital anomalies of the brain. It can detect perinatal intraventricular hemorrhage, but transfontanel ultrasonography is the preferred diagnostic procedure in infants

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A Consensus Development Conference held at the National Institutes of Health on Nov. 4-6, 1981, reviewed scientific evidence related to computed tomographic scanning (CT) of the brain.

The conference was sponsored by the National Institute of Neurological and Communicative Disorders and Stroke, and cosponsored by the National Cancer Institute. Assistance was provided by the Office for Medical Applications of Research, NIH.

A bibliography on computed tomographic scanning of the brain and names of panel members are available from the Office for Medical Applications of Research, NIH, Bldg. 1, Room 216, Bethesda, MD 20205.

under one year of age because of the portability of the ultrasonic equipment and the ease of performing this test.

CT is not necessary in evaluating the majority of children with developmental retardation, cerebral palsy, seizure disorders, or headaches, because the presence of a surgically treatable lesion is extremely low. The clinical situation must, in each case, be considered individually.

Are there specific contraindications?

CT is a remarkably safe diagnostic procedure and there are no absolute contraindications to its use. Its employment carries, nevertheless, potential hazards, as does any diagnostic procedure. These may include separation of a critically ill patient from intensive medical and nursing care, an adverse response to contrast material, and a possible delay in applying emergency lifesaving treatment to immediate life-threatening conditions such as acute arterial epidural hematoma. CT scanning facilities should have immediately available the staff and equipment to manage cardiorespiratory and neurological emergencies. The staff itself should be skilled in methods to prevent movement artifacts.

The use of contrast agents, usually administered intravenously, increases accuracy and may assist in characterizing lesions. The benefits of enhancement must be balanced against the increased risk to the patient should an adverse reaction occur. The total risk of the use of contrast materials is small and the incidence of severe reactions does not exceed 0.04%. Reactions, when they do occur, include allergic manifestations, hypotension, congestive heart failure, the development of renal insufficiency, and possibly adverse effects on the brain. The likelihood of complications is increased by advanced age, the presence of diabetes, cardiac, renal, or cerebral vascular disease and by the administration of large doses of contrast material.

How much radiation is delivered during use of currently available CT scan equipment, and how is this dosage commonly expressed?

CT irradiates a transverse section of the skull with a narrow x-ray beam, commonly 10 mm wide in equipment currently available. No single number can completely characterize the dose delivered to that section because the dose is not completely uniform throughout. For many purposes, the use of an average dose per section suffices. Typically, ten adjacent transverse scan sections, each of 10 mm width, are sufficient for examination of the entire brain. The average dose to the entire brain can be estimated from the average dose to each section. In addition to the average dose, the surface dose and doses of other points may also be stated.

The dose delivered to the brain depends upon individual machine characteristics and mode of operation which include the kilovoltage and milliamperage of the x-ray tube, the exposure time and tube current, the beam filtration, the x-ray target-to-patient distance, the CT detectors used, the scan angle, etc. Because modern CT scanners utilize narrow x-ray beams with good radiation shielding, there is little dose delivered to tissues outside the imaged volume. Doses to sensitive organs, such as the thyroid gland and the gonads, which are well outside the useful beam, are much less than that received by the brain. The radiation dose to the lens of the eye is low if it is outside of the area scanned. Scanning should exclude the eye unless it cannot be avoided. Adequate maintenance and proper use of the scanner by trained technicians is necessary to insure that the radiation dose is the minimum required for the examination.

The unit by which dose is expressed is currently undergoing a transition from the commonly used rad (100 ergs/gm) to the gray (1 joule/kg). The relationship between the rad and the gray is: 1 gray = 100 rad. In this report, the unit centigray (cGy) will be used (1 cGy = 1 rad). The average dose to the brain for a complete scan series ranges from about 1-10 cGy. This range is comparable to or less than the dose from many other procedures commonly used in diagnostic or dental radiology. Thus, as an x-ray procedure, routine CT does not deliver a particularly high radiation dose.

Prompt employment of CT has improved the management of severe head trauma. The identification of traumatic intracranial mass lesions causing increased intracranial pressure has led to early surgical treatment of hematomas, the elimination of unnecessary surgical explorations, and more effective medical management. Evidence suggests that early surgical removal, i.e., within four hours, of acute subdural hematomas has decreased mortality and morbidity. In patients with head trauma sequential CT has permitted the

As is the case for all x-ray studies, particular consideration is needed in the examination of infants and children. The effects of repeated cumulative low-level radiation doses to the immature, developing brain (particularly from birth to 2 years of age) are as yet unknown. Special caution must be exercised in ordering multiple CT scans. In the infant, as noted earlier, ultrasound is often the preferred modality to monitor the status of abnormalities such as hydrocephalus.

Certain practices, including repeated scans, can increase the dose delivered. Special techniques—such as overlapping sections to detect small abnormalities, very thin sections to permit multiplanar reformatting*, slow scans to improve resolution, and dynamic scanning**—all increase the radiation dose. These studies may contribute useful information in specific cases but they are not recommended for routine use.

To what extent has CT scanning influenced the management of intracranial disorders, such as malignancy, trauma, vascular anomalies, and cerebrovascular disease?

CT has had a major influence in the management of many intracranial disorders. It is a procedure entailing minimal discomfort and morbidity while producing a high degree of diagnostic accuracy. Lowered morbidity and mortality result from the decreased use of invasive diagnostic procedures.

*A technique in which the data obtained from a series of scans made in one CT plane are reprocessed in the computer to produce images of sections in other planes through the head.

**Multiple sections taken at one location in rapid sequence to observe changing patterns of contrast enhancement.

identification of expanding intracranial subacute and chronic hematomas leading to an improved outcome.

The management and prognosis of patients with brain abscess have been substantially improved since the introduction of CT. The improvement is probably the result of early diagnosis permitting prompt institution of antibiotic therapy and more accurate determination of whether and when surgical intervention is needed.

In primary brain tumors, and in contrast to other diagnostic modalities, the use of CT has resulted in the detection of smaller lesions and more accurate localization; lowered surgical morbidity and mortality and a decreased length of hospital stay have been the result. In metastatic brain tumors, CT identifies and localizes single and multiple lesions earlier than other techniques, thus permitting optimal treatment of both the metastatic and primary lesions. Postoperative complications due to hemorrhage or edema are identified more accurately, resulting in better treatment. Planning of radiation treatment of brain tumors is aided by CT as is follow-up evaluation after surgery, radiotherapy, and chemotherapy.

CT will usually differentiate between ischemic and hemorrhagic intracranial lesions. This distinction permits selection of patients for medical or surgical therapy. In subarachnoid hemorrhage, CT can obviate the need for lumbar puncture by the demonstration of subarachnoid blood in a high percentage of cases scanned soon after the hemorrhage. It can be helpful in localizing the source of the bleeding and may be useful in predicting development of vasospasm. CT can help to identify the ruptured aneurysm in patients harboring multiple aneurysms and sometimes shows unruptured asymptomatic or symptomatic aneurysms or arteriovenous malformations. In selected cases, this capability has led to better treatment of aneurysms and arteriovenous malformations and the prevention of late complications from these lesions.

Has the availability of CT brain scanning influenced the use of other methods for imaging the brain?

The superior ability of the CT examination in the detection of intracranial and intracerebral disease processes has profoundly altered the use of several preexisting radiographic methods for examining the brain. The modalities of skull roentgenography, geometric cranial tomography, cerebral angiography (arterial and venous), pneumoencephalography, positive contrast cisternography, radionuclide brain scanning, and ultrasonic echoencephalography have all decreased in use. Some of these examinations, notably the most invasive, those causing significant patient discomfort, or those with nonspecific diagnostic results have been affected more than others. Pneumoencephalography, radionuclide scans, and ultrasonic echoencephalography have almost disappeared from the neuroradiologic armamentarium where CT has been available. The utilization of skull roentgenography, geometric cranial tomography, and positive contrast cisternography has declined more recently as "modern" high resolution CT has become available. Such scanners provide bony anatomic information in addition to the unique low-density soft tissue data, available only with CT.

Although the use of cerebral angiography has not diminished to the same extent as the above-mentioned procedures, it is being used less frequently as a screening or diagnostic procedure.

The developments enumerated above have had a favorable impact upon health care delivery. CT scanning has often reduced risk and discomfort for patients. Data indicate that the costs of CT in diagnosis have been substantially offset by a reduction in costs resulting from discontinued procedures and the elimination of equipment needed to carry them out. In some cases net costs of diagnoses have even been reduced. The panel heard evidence that the use of CT in outpatient diagnosis holds the potential for reducing hospital admissions and shortening hospital stay.

The success of CT scanning using x-ray has stimulated interest in tomographic imaging with other radiation sources. Similar computer techniques are being used to reconstruct images of the distribution of radioactive isotopes within the brain, procedures called emission computed tomography (ECT). Two forms of such techniques have been developed related to the type of radioactive materials and the detection system employed. These are single photon ECT (SPECT) and positron emission tomography (PET) scanning. SPECT and PET are able to measure functional variables such as local cerebral metabolism and blood flow that are not measured by CT. They disclose increased vessel permeability when present, which may also be detected on CT by contrast media enhancement. The spatial resolution of these techniques is less than that of CT, and as an imaging device the definition of the anatomic position of the measured function is limited with SPECT and PET. At present, these modalities are being applied in a limited number of institutions and their clinical role in the evaluation of stroke, epilepsy, and the metabolic aspects associated with mental disorders is the subject of ongoing research.

Recently, nuclear magnetic resonance (NMR), a technique using nonionizing forms of energy, has been used to produce sectional images of the human body. A strong magnetic field used in conjunction with a radiofrequency oscillating magnetic field induces signals from atomic nuclei in tissues. These signals are reconstructed by a computer into sectional images in any plane in the head or body. The significance of the technique in clinical diagnosis remains to be determined. The potential advantages of NMR as compared to CT are the possibilities of providing improved imaging, and of identifying the chemical state of some important nuclei from which energy metabolism can be inferred at low resolution. In addition, the potential hazards associated with ionizing radiation are avoided by NMR.

There are no known deleterious effects on tissues or organ systems from the magnetic fields and radiofrequency power densities presently used. The extent to which tissue characterization techniques will yield clinically useful information at practical financial costs has yet to be established.

What is the practical limit of definition and resolution in CT scanning that may preclude its value in the diagnosis of brain disease?

CT scanners are designed to detect morphologic abnormalities of the brain. In the opinion of the panel,

most contemporary scanners meet this goal with a high degree of accuracy. They discriminate among lesions depending on contrast and size. The lower limit of resolution is difficult to define, but some scanners are capable of detecting pituitary adenomas as small as 3 mm. Unfortunately, there is no way to know how many "negative" examinations are truly negative or simply due to limitations in the imaging method.

Current limitations in the quality of CT scans lie in spatial and contrast resolution and in scan speed. Dramatic improvements have occurred in these factors since 1973, but it is unlikely that this pace of improvement can be maintained. Improvement in contrast resolution, or the ability to detect a small signal against a noisy background, without increasing the radiation dose, is dependent on increasing dose efficiency which is approaching its theoretical limit. Spatial resolution is dependent on improvements in detector and semiconductor technology and can be expected to improve as these technologies advance. An increase in data obtained from selective sampling will lead to optimizing detection for a given signal to noise ratio; however, to obtain quantitative certainty commensurate with the improved sensitivity, radiation dose must be increased. Scan speed is largely limited by x-ray tube output and the ability of the x-ray tube anode to dissipate heat. New developments in x-ray tube design will lead to increases in span speed.

Thus cost and the potential risk of increased radiation dose are the major practical constraints on further advancements in CT technology.

PRACTICE OPPORTUNITIES AVAILABLE IN NASHVILLE

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INTERNAL MEDICINE

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the Consulting Group

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For more information contact:
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Attention: Mrs. Parton
117 East Main Street
Murfreesboro, Tennessee 37130
Telephone: (615) 890-6464

**Ocean Front—2 Bedrooms*



PENINSULA HOSPITAL

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Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

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The Coming Revolution in Medicine

WILLIAM G. CROOK, M.D.

Over 50 years ago, the late Albert Rowe, Sr., M.D.[1] of California began to write about food sensitivity and its relationship to a wide variety of human illnesses. A few years later, Theron Randolph, M.D.[2,3] described food-induced reactions in both children and adults, and their role in causing many systemic and nervous system symptoms. Subsequently, Randolph[4] made pioneer observations on the effect of chemical sensitivity and its role in causing human illness.

During the past 20 years, hundreds of other physicians have become interested in diseases caused by food and chemical sensitivity (FCS). Yet, until recently their observations have been ignored and at times ridiculed by the "mainstream" of American medicine. However, the situation seems to be changing, and changing rapidly.

For example, William T. Kniker, M.D.,[5] Professor of Pediatrics and Head of the Department of Allergy and Immunology at the University of Texas (San Antonio), recently commented, "The notion that disease may stem, not from within the body, but from the world around it, is difficult for physicians to accept. . . . If the clinical ecologists are right, we'll have to rewrite the medical textbooks." A recent book, *Food Allergy: New Perspectives*,[6] edited by John W. Gerrard, M.D., Professor of Pediatrics at the University of Saskatchewan, includes articles by Sandberg,[7] Miller,[8] Rea,[9] Rapp[10] and other contributors "who have become very much aware of the part played by foods and chemicals in foods, and in the environment in causing disease."

Many other observers[1,11-19] during the past several decades have noted that FCS plays an important role in a variety of other conditions, including vertigo, tinnitus, headache, chronic fatigue, depression, arthralgia, recurrent otitis media, and numerous other chronic health disorders.[20] Yet, the role of allergies and nutritional and environmental sensitivities in causing such problems has been largely overlooked by most physicians.

Recently, however, David E. Rogers, M.D. and associates[21] of the Robert Wood Johnson Foundation, stated, ". . . The world has now entered a new decade . . . that of the 1980s. It is a decade . . . which will pose a very different set of challenges for pediatricians and those generally concerned with the welfare of children." They especially emphasized problems relating to school and allergy, stating "The former life threatening problems and care of the hospitalized child seem to occupy less and less of the pediatrician's day."

In the 1981 book, *Child Behavior*,[22] the authors describe the multiple factors that play a role in causing illness and behavioral problems in children. These include nutritional deficiencies, food allergies and exposure to toxic environmen-

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tal substances, such as lead.

These observations emphasize a growing recognition of the importance of FCS in contributing to a wide variety of chronic health problems.*

In this presentation, I shall briefly describe the diagnosis and treatment of FCS, and present five cases from my own practice.

Diagnosis of Illness Caused by Food and Chemical Sensitivity (FCS):

Although each patient is unique and the picture in children differs considerably from that in adults, symptoms and signs caused by FCS are quite characteristic. They include fatigue, legache, drowsiness, irritability, hyperactivity, depression and other nervous system symptoms. Nasal congestion (often called "sinus") is almost always present, as is facial pallor (in the absence of anemia) and discoloration under the eyes ("allergic shiners"). Other symptoms include recurrent abdominal pain and aching and/or swelling in the muscles and joints. Moreover, many patients with FCS also have genitourinary symptoms, persistent cough, and chest pain.

Patients with this constellation of symptoms should be given the benefit of a comprehensive history and physical examination to rule out other possible causes of their symptoms. Laboratory studies, including a complete blood count, urinalysis, tuberculin test, and sedimentation rate would also be appropriate. Depending on the patient's age and the findings on initial examination, a chest x-ray, thyroid panel, and routine blood chemistry tests may also be indicated to rule out other inapparent causes of the symptoms.

In studying patients with this characteristic clinical picture I usually prescribe a one-week elimination diet that avoids milk, wheat, egg, corn, chocolate, citrus, sugar, and the food colors and dyes, [23 (pp 11-24, 45-55)] since individuals with food-induced illness are usually made ill by reactions to their favorite foods.

Then, if there is significant improvement in symptoms lasting 48 hours, the patient is challenged with the eliminated foods, one at a time, and reactions are noted.

Based on my experiences during the past 25 years with thousands of patients with food sensitivities, I feel that such an elimination diet is indicated before subjecting the patient to more complex, expensive, and painful tests or procedures.

Recently, Hedges,[20] a Little Rock, Ark., family practitioner, also emphasized the simplicity and effectiveness of this approach. He commented, "In this day of rising costs of medical care, I was really intrigued by the cost of this 'work-up'. . . . What an impact on the cost of medicine we could have if we could identify a person's chronic complaints caused by food . . . before being shoved into a system of testing . . . testing which will not disclose the culprit of their disorders."

Moreover, Hedges has found an even more comprehensive elimination diet (sometimes referred to as the "cave man" diet) [23 (pp 25-38, 49-52)] is especially effective in studying adult patients' chronic health problems (including tension headaches, anxiety, nervous stomach, irritable colon, and hypochondriasis). Such a diet avoids *every food the patient eats more than once a week*, including beef, pork, chicken and all grains. Permitted foods depend on the patient's usual diet, and usually will include lamb, wild game, fish, shrimp and other seafood, unprocessed nuts, broccoli, carrots, yams, and pineapple. Along with the elimination diet, the patient is instructed to avoid chemical exposures, including tobacco smoke, colognes, perfumes, bathroom cleaners, insecticides, and other chemicals commonly found in his home or workplace.

Patients who are severely affected may require study in a specially designed environmental unit of a hospital.[24] In such a unit, the patient is fasted for four to seven days and given only spring water. The unit is also constructed with natural materials which do not "outgas." These include steel, hardwood, stone and porcelain. Only cotton clothes are used, and are washed in Ivory soap and baking soda.

During the period of fasting, symptoms in many chronically ill patients clear. Then to determine which foods, chemicals, or other environmental substances are causing problems, the foods and other substances are returned to the patient's diet, one food at a time.

A significant number of patients who are made ill by foods and chemicals show positive immunological findings,[9,25-27] including low T-cells,

*Physicians interested in the relationship of chemical sensitivity to human illness will find a comprehensive review of the problem in a recent article by William J. Rea, M.D. and Monty J. Mitchell, M.D., published in *Immunology and Allergy Practice* (4:157-167, Sept/Oct 1982).

complement, IgA, IgG and IgM, and immune complex abnormalities of the IgG type. Interestingly enough, IgE in many or most of these patients is normal.

Specific Treatment

If a patient is found to be sensitive to one or more foods (as determined by elimination and challenge), he is instructed to avoid those foods, although many food-sensitive individuals, following avoidance of the food for one or more months, may to be able to consume it in limited amounts on a rotational basis, such as once every four to seven days.

It is also important for the food and chemically sensitive patient to avoid tobacco smoke, perfume, insecticides and other chemicals, even those that had not previously caused reactions. These include, especially, environmental chemicals derived from petroleum, formaldehyde, and phenol.

Although avoiding substances that cause allergic reactions is unquestionably the best method of therapy, many patients are sensitive to so many substances that avoidance is difficult or impossible. Such patients will often be helped by provocative testing with food and chemical extracts, followed by the administration of neutralizing doses of these extracts. Although this type of therapy has been considered "controversial," its efficacy has been documented in double-blind studies by Miller[28] and Rapp,[29] and by Rea,[9] Sandberg,[7] Rapp,[10] and Miller.[8] The efficacy of this therapy has also been recently presented by Jesse M. Hilsen, M.D.,[30] Assistant Professor of Psychiatry at the Mount Sinai School of Medicine and Director of a Behavioral Medicine group.

Supportive treatment of the patient with FCS may help in the patient's management. One such measure is providing the patient with a source of pure water, since toxic chemicals are entering the public water supply at an alarming rate. Bottled spring water or commercially available water-filtering devices will help lessen the patient's chemical load.

The diet of patients troubled with FCS should be as free of chemicals as possible, and should consist of a diversified group of foods containing proteins, complex carbohydrates, and essential fats and oils. Vitamin and mineral supplementation, especially with the B and C vitamins, may also help many patients.

Appropriate amounts of sunlight and/or full spectrum light are also needed for optimum health. (Many who live or work in buildings without windows, which use fluorescent light, suffer from health problems, according to the research work of Ott[31] and associates.) Exercise is also an important part of the patient's supportive treatment.

Other Relevant Treatment Measures

Control of Candida albicans colonization in the intestinal tract. C. O. Truss, M.D. of Birmingham, Ala.,[32] suggests, and my own experiences and those of Owen[33] confirm, that many chronically ill adult patients who present with multiple system complaints suggestive of "hypochondriasis" give a history of one or more of the following: repeated or prolonged administration of antibiotics, the use of birth control pills, pregnancy, the use of corticosteroids, and the ingestion of diets rich in yeasts, sugar, and unrefined carbohydrates, all of which promote colonization of *C. albicans* in the intestinal tract. Such colonization appears to cause problems within the immune system, which may result in a variety of disorders, including chronic urticaria, nervous system symptoms, as well as gastrointestinal, neuromuscular, genitourinary, and other symptoms.

Since some degree of colonization with *Candida* is present in all individuals beginning early in infancy, smears and cultures to detect the presence of *Candida* do not help in the diagnosis. Neither do other sophisticated laboratory tests.

In discussing illnesses related to *C. albicans*, Truss[34,35] comments, "Identifying this relationship must be accomplished through a therapeutic trial, consisting of a mold-free, low-carbohydrate diet and the use of oral nystatin (*Streptomyces noursei*). In addition, avoidance of environmental molds is also important." In his continuing discussion, Truss points out that the patient with immune system problems related to *Candida* typically shows symptoms involving many parts of the body.

Headache, fatigue, depression, incoordination, and poor memory are common symptoms, as are constipation and "bloating"; low abdominal pain alternating with diarrhea occur prominently. Premenstrual tension, dysmenorrhea, loss of sexual feeling, recurrent vaginitis, urgency, frequency and other symptoms related to bladder function are also frequently seen in patients with the "candida problem."

Even more exciting are the clinical reports by

Truss describing recovery from a wide variety of other chronic diseases, including chronic urticaria, multiple sclerosis (five patients), depression, schizophrenia, Crohn's disease, systemic lupus erythematosis, thrombocytopenic purpura and sarcoidosis. He also comments, "One of the subgroups of patients with chronic candidiasis consists of those with severe intolerance to virtually all chemicals. . . . One-third of these patients have been found to have low T-cells. . . . It is becoming increasingly apparent that these chemical sensitivities are disappearing and the T-cells are returning to normal (following treatment with nystatin) . . . indicating that the low T-cell counts were caused by *Candida albicans*."[35]

Patient Presentations

Case 1. This 6-year-old child, first seen Oct. 2, 1975, gave a history of recurrent colds manifested by stuffy nose, cough and hoarseness, headaches, abdominal pain, and muscle aches. In addition, while in kindergarten, he experienced troubles in paying attention to the teacher and was subject to repeated discipline because of overactivity.

Following an elimination diet and challenge, corn products, eggs, and sugar were found to cause hyperactivity, nervousness, and respiratory symptoms. Six months after these foods were eliminated from his diet, his parents reported, "This year, he is learning very fast and is in the top group in all of his classes. He seems well adjusted and is rarely sick with head or throat infections. His diet really helps."

Case 2. This 14-year-old girl, first seen June 22, 1981, developed muscle and joint pain and swelling beginning in January 1981. Extensive study and investigation, including hospitalization at two university medical centers, resulted in the diagnosis of rheumatoid arthritis. The child required crutches for three months. Because of the previous personal and family history of allergy, she was placed on a basic elimination diet (the "cave man" diet).[23 (pp 25-38, 49-52)] After following the diet six days, all joint symptoms subsided and remained absent for six days, when food challenges were begun. Several foods caused mild joint pain, but when peanut butter was ingested, severe joint pain and swelling appeared in 45 minutes. It was found that during the child's period of continuing disability, she had eaten peanut butter several times a day. In the 1½-year period of follow-up, she has led a normal life and has experienced no joint symptoms except when she has eaten incriminated foods.

Case 3. This 8-year, 7 month-old child, first seen June 26, 1979, gave a history of overactivity, behavior and learning problems, headache, abdominal pain and muscle aching. The family had noted that symptoms were aggravated by the ingestion of milk, corn, and cane sugar. At the time of his initial visit, a more comprehensive elimination diet was prescribed, which helped his family identify additional food sensitivities. Avoiding these foods was difficult, however, and he would develop nasal congestion, enuresis, and abdominal pain following dietary infraction.

At a subsequent visit, he was tested using the *intradermal provocative test method of food testing* described by Miller.[28] Foods tested included wheat, egg, milk, beef, cane, oat and rye. Following testing, the child was placed on "neutralizing doses" of food extracts, administered sublingually three times a day. His diet was rotated so that foods that had once caused trouble were taken less frequently.

The frequency of food extracts was gradually reduced and, after two years, were taken only three times a week, but if they were omitted, his symptoms would return. Even with the extracts, if the child overindulged in wheat, his mother would note irritability and dark circles under his eyes, and eating foods with high sugar content would "space him out." In addition to his rotated diet and food extracts, the child was given supplemental vitamins and minerals, including B and C vitamins, calcium, magnesium, and zinc. At his follow-up visit on Feb. 2, 1982, the child was noted to "look good . . . trim, well proportioned, well muscled." His physical examination was normal except for slight allergic "shiners." His mother reported "He is doing great. He rarely is troubled by the symptoms that once bothered him. He's doing well in school and is well accepted by his teachers and his peers."

Case 4. This 42-year-old woman, first seen Feb. 19, 1977, had suffered from chronic urticaria for 3½ years. Studies and treatment recommendations at a university medical center did not help. I worked with this patient for two years, during which she was hospitalized, fasted, and given various trial diets; allergy tests of various sorts carried out. Medication included prednisone, hydroxyzine hydrochloride (Atarax), hydroxyzine pamoate (Vistaril), ephedrine, terbutaline sulfate (Brethine), and cyproheptadine hydrochloride (Periactin) with no significant help. She was hospitalized at a second university center and studied further, without help. In addition to medications listed above, she required twice daily injections of long-acting epinephrine (Sus-Phrine) to control symptoms.

In October 1979, nystatin was prescribed (one tablet . . . 500,000 units four times a day), along with a yeast-free, low carbohydrate diet. Her hives improved significantly in five days and gradually subsided over the next several months. Other symptoms, including rhinitis, sinusitis, fatigue and mental confusion also gradually improved, and nystatin discontinued after one year. At follow-up, January 1982, the patient commented, "I'm working every day. No hives. No medication. I feel great."

Case 5. This 33-year-old woman was first seen July 10, 1982, with complaints of headache, dizziness, nausea, nasal congestion, night cough, chest pain, bladder symptoms and premenstrual tension. Here are excerpts from her history, written in her own words:

"I'm ready to find out if it's all in my head or whether it's something really making me sick. All my childhood I suffered with stomach problems which were usually blamed on nerves. Several years ago, I developed a strange swelling in my ankles and feet which kept me from walking for several weeks. About the same time . . . in the fall of 1980 . . . I began having headaches, dizziness, nausea, sore throat and earaches. Antihistamines and antibiotics helped a little. Food elimination helped to some degree but I continued to be troubled by persistent night cough. Then, after a short exposure to paint, I felt sick with generalized aching. Also, I developed peculiar symptoms following injections of Novocain by the dentist, including confusion, fatigue, and light-headedness. In the spring of 1982, I developed bladder problems, including infections, frequent urination, and incomplete evacuation of my bladder."

Her general physical examination was non-revealing except for dark infraorbital circles and an overall appearance of fatigue. Allergy testing to common inhalants showed no reactions.

The patient was started on 1 million units of nystatin four times a day and a yeast-free, low-carbohydrate diet. She began to improve within ten days after being started on the

treatment program. Treatment continued. Flareups were noted whenever she ate foods containing sugar or yeast, or when she was exposed to chemicals.

Follow-up visit in November 1982 showed continuing improvement, but for improvement to be maintained, the dose of nystatin had to be increased to 2 million units four times a day.

Concluding Comments

Admittedly, labeling disorders such as migraine, ulcerative colitis, asthma, the attention-deficit disorder, multiple sclerosis, or systemic lupus erythematosis serves a useful purpose. Yet, new scientific data suggest that many of these diseases are interrelated and result from environmental, nutritional, biochemical, and other influences that affect the immune system. By recognizing these causes, and taking steps to alter them, physicians may be able to help many of their patients without resorting to hospitalization, surgery, or drugs.

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Disease in Nashville: A Short History

JOHN B. THOMISON, M.D.

Prologue

It would be difficult under any circumstances to cover the history of disease in Nashville and its environs, so that the limitation placed on this presentation borders onto the ridiculous. As it will obviously be possible to hit only the high spots, I shall dwell entirely on infectious diseases, and mostly on the spectacular epidemics of cholera and influenza, only mentioning some of the more prevalent diseases, such as typhoid fever, tuberculosis, smallpox, and scarlet fever—diseases that have caused so much morbidity, and considerable mortality as well, over almost the entire period. While all of these have also produced epidemics, they have been endemic in the population, producing sporadic cases as well. This report ignores many important causes of illness, such as diphtheria, for example, and the other childhood diseases, and also poliomyelitis, which occurred endemically as infantile paralysis, and epidemically on several occasions, particularly in the late 1930s and early 1940s. Thanks to immunization, these have all virtually disappeared.

The story of disease in Nashville is largely one of public health efforts. Many men have contributed immensely to this, only a few of whom I will mention later. Because most of what I have to say antedates the era of specific prevention and antibiotics, I need to mention at the outset that Davidson Countians, among whom are Nashvillians, owe a tremendous debt to Dr. John Lentz, who was the county health officer from 1920 until his retirement in 1964. Under his guidance a very large percentage of the public health measures in this area were instituted; it is for him the local public health center is appropriately named. The public health is currently under the surveillance of Dr. Joseph Bistowish, who in 1964 became Metro's first and only Director of Health. In fact, however, the joining of the city and county health departments under Dr. Lentz antedated Metro by some 12 years.

This is the second paper of a symposium on Medical History in Nashville, presented before the Nashville Academy of Medicine, Sept. 14, 1982, Nashville.

An Open-Ended Challenge

In spite of primitive conditions and minimal formal medical care, Nashville's early settlers flourished, and there is actually little mention of serious illness among them. Although the frontier settlements generally appear to have suffered a great deal from smallpox, the first case in Nashville was in 1817, following which a program of vaccination was instituted. Malaria was a problem, as it was throughout the entire central basin. An early writer, however, said that by and large their doctors were a fine climate, healthy parents, plain and plentiful diet, and exercise. Nevertheless, there was a time in the mid-1800s when Nashville had the dubious distinction of having the highest death rate of any city in the United States, and worse, of the cities of the world reporting vital statistics, Nashville was the fifth deadliest. When those statistics were released, citizens asked, "How is it Nashville got so sick all of a sudden?"

The major problem with which Nashville has always had to contend, and one that continues up to the present time, is inadequate and improper sewage disposal, leading to fecal contamination of food and water supplies. If we exclude nutritional disorders, which have always been a major factor in disease in the poorer segments of the population, all other medical problems have been minor by comparison. Although the three cholera epidemics it engendered were more spectacular, the continuous toll from typhoid fever and dysentery was much greater up until the advent of modern antibiotic therapy; more recently, hepatitis has become a threat. Current foot-dragging by the administration on proposals to extend the sewers is in the true tradition of Nashville politics.

Until almost the end of the last century, garbage was left lying in the streets, human excrement flowed along the surface, especially on rainy days, and the water from wells and springs was exceedingly dangerous to drink. The majority of homes had unacceptable outdoor privies, and milk filled with sediment was sold daily from carts

in the streets. All this was compounded by Nashville's location on a limestone shelf situated very close to the surface, so that very little water falls on Nashville that does not make its way into the surrounding streams and eventually into the Cumberland River.

For much of Nashville's history, a major portion of the polluting effluent found its way into the river by way of Brown's Creek, which from the mid-1800s to about the turn of the century emptied into the river above the intake for the city's water supply. In addition, the streams were invariably swollen and overflowing their banks in the winter and spring, grossly contaminating public wells and springs, an important source of water for domestic purposes. In the city's early days, because the settlement was on the highest elevations overlooking the river, none of this proved to be a problem. As the city grew, however, the wells from which the early settlement obtained most of its water became a source of typhoid fever and other enteric diseases, so that one of the first problems to be addressed by the medical community was that of a water supply adequate to accommodate the expanding city. A modern water supply system completed in 1833 served the city for the next 50 years.

Cholera Comes to Nashville

Cholera was first introduced into the United States in 1832, and Nashville's first case occurred on Dec. 14 of that year. During the epidemic that devastated many Tennessee towns in the spring and summer of 1833, 173 Nashvillians died, among them Dr. James Roane, first president of the Tennessee State Medical Association. A second severe epidemic in 1849, lasting from January to August, claimed as one of its victims James K. Polk, 11th President of the United States, who on completion of his term of office in March 1849 retired to his home in Nashville only to die of cholera in June. As they did following the previous epidemic the medical profession attempted to institute sanitary measures, but they were largely ignored. The city was a dreadfully filthy place, and such refuse as was not simply allowed to rot in the streets was carted to the edge of town, dumped, and allowed to rot there. As early as 1850 two health inspectors were appointed, and the threat of an epidemic in 1862 resulted in the appointment of a board of health, but it ceased to exist when the city was occupied by the Union Army; it was not reactivated until 1866, when cholera again prevailed in many parts of the United States. Even then the board's recommendations were largely not followed, and it was disbanded the following year.

The first case of cholera in that epidemic occurred in mid-August of 1866, and by mid-September the epidemic was well under way. The most gravely hit were Confederate war veterans encamped in front of the State Capitol, where sanitary conditions were particularly bad. More than 800 deaths gave Nashville a mortality greater than that of any city in the United States with the exception of Memphis. Dr. Joseph S. Jones, a former surgeon in the Confederate Army, and the city's first health officer, reported that of the 20,248 persons who died in Nashville between 1822 and 1866, a tenth of them died of cholera.

By 1873 Nashville was a city encompassing 1,824 acres, with a population of about 27,000, most of them crowded into two-thirds of the area. Approximately one-third were black and lived in squalid surroundings, and more than 6,000 derived their water from wells and springs that tests had consistently shown to be contaminated. There had been no health officer since 1869, and no sanitary code existed. Dr. Berrien Lindsley commented that Nashville had not changed its sanitary habits since its village days, with the result that the city suffered its severest epidemic from any cause. It began in May of 1873, and by the time it ended death had claimed more than 1,000 Nashvillians, including 72 on June 29, which came to be known as Black Friday. Between June 7 and July 1, 647 citizens were buried. Because the number of bodies far outstripped the ability of the undertakers to care for them, a city ordinance directed that all bodies be placed on the sidewalk in front of the house by 9 o'clock each morning, to be collected on carts, placed in boxes, and buried. The streets were open sewers, and hydrants were opened in many places in an effort to wash away the neglected rubbish.

This final devastating epidemic, with a death rate of about one person in 25, provided the necessary stimulus for a law creating a board of health, the progenitor of the present Nashville Metropolitan Health Department, and led ultimately to the construction of a new water supply system. Its new reservoir on Kirkpatrick Hill, the site of the present reservoir, was begun in 1877 and completed in 1889. A new sewage system was begun at the same time, and when it was completed in 1895 the city boasted that the Lick

Branch sewer was the largest in the South. Nevertheless, the sewer system in Nashville has never yet kept up with the city's expansion, so that much of the city is still dependent upon septic tanks and surface drainage for its sewage disposal, with the concomitant threat of disease.

The Sooty City Gets the Flu

Nashville's situation in a bowl provided protection and no problems for the early settlers, but as the population increased, and soft coal became the major fuel, temperature inversions sometimes kept the smoke from rising for days on end, depositing a layer of soot on everything from streets, utensils, and clothing to the alveolar linings of the citizens' lungs, with the result that respiratory diseases have always been a problem in this area. Although in the 1890 report of the City Health Department there was a comment that smoke and soot had grown to be a serious nuisance, no great emphasis was placed on general air pollution until relatively recently. It was not until 1941 that the city created a division of smoke regulation; like many other things, this was placed on the back burner by the events of World War II, which immediately followed. When I entered Vanderbilt as a student in 1938, there were many mornings when Kirkland Tower was invisible from Kissam Hall, where I lived, only a hundred or so feet away, and headlights were necessary until late morning.

Whether this had any bearing on the other major epidemic to strike Nashville, I have no way of knowing; the influenza pandemic of 1918 struck all areas of the country, and indeed, although it was severe in Nashville, it was much less so than in most other areas.

The pandemic of 1918 differed from any previously reported in that the mortality of hospitalized cases (mostly pneumonia) was unusually high, varying from 15% to 30%, and the highest mortality was in the 25 to 30 year age group. Over half of the dead were younger than 50, and relatively few were old and infirm. Although many of these patients certainly died of complicating streptococcal or pneumococcal pneumonia, many died within the first 72 hours, making it almost certain that death was due to the influenza virus itself.

Recent studies have indicated that the epidemic was caused by the swine influenza virus, an uncommon pathogen for man, rather than by any of the more established human pathogens. It has also been demonstrated that in spite of its various appellations as "Spanish Flu" and other such names, the pandemic actually had its origins in Fort Riley, Kansas, in March 1918, proceeding in three waves, the first in the spring of 1918, the later "killer" wave in the fall of the same year, and finally a somewhat milder wave in the early months of 1919. Before the winter was out half a million Americans died of it, with a cost in loss of productive lives reaching into the billions of dollars, not counting the untold misery, sickness, and personal loss the 25 million clinical cases of influenza, amounting to one-fourth of the entire nation's population, would produce, along with disruption and virtual cessation of community life in many areas.

Nashville at the time of the epidemic had an official population of approximately 120,000, but consequent to the location of the powder plant at Hadley's Bend, now Old Hickory, this was swollen by about 35,000 desperately crowded immigrants to around 155,000. There were approximately 40,000 cases of epidemic influenza from Oct. 1 to Nov. 15, of which 468 terminated fatally, for a case fatality rate of 1.17%. This means that in that six-week period about one person in four contracted the disease, and one person out of every 300 died of it, for a mortality of about 0.3%.

The disease made its appearance in the early days of September, reaching noticeable proportions by Sept. 16, and ten days later it had become apparent that epidemic status had been attained. This placed severe stress on Nashville's medical community, since of the 380 doctors then in Nashville, more than one-third were on active duty in the military service. This left about 250 doctors to care for the quarter of the 155,000 people who would be sick with the flu, assuming all the doctors stayed well, which they did not. Almost every doctor in Nashville contracted the disease, and a number of them died. Rural Davidson County, as well as towns in adjoining counties, such as Springfield and Centerville, were even harder hit, some of them having no physicians at all, those who had not gone to war having been incapacitated by the flu.

On Oct. 7 an order went out banning all amusement gatherings, and on the following day the county schools closed, although the city schools remained open. No quarantine was ever issued, because the health authorities realized the danger of exposure was so great generally that to quarantine cases was next to impossible and of no value. A quarantine was, however, imposed

by fright, and entire families were isolated by their neighbors, who refused to come to their aid even when no family member remained able to minister to the others. The epidemic reached its peak on Oct. 11, when 29 people died, though deaths remained in double figures until Oct. 23.

For statistical purposes the epidemic is considered to have lasted until Nov. 15, but by Oct. 15 the city health officer reported the number of cases materially declining, judging from the decrease in calls for aid from his department. By Nov. 1, the situation was such that schools and places of amusement were again opened, so that when the long world war ended some ten days later, Nashville, unlike many cities, particularly those on the Eastern Seaboard, where the disease raged unabated throughout the winter, was able to celebrate a double armistice.

The White Death

Until at least the beginning of this century, all chronic lung diseases, doubtless encompassing such things as bronchiectasis, a common sequella of pertussis, emphysema, and lung cancer, were lumped with tuberculosis into "the consumption." Until relatively recent years tuberculosis has been the cause of a great deal of sickness and death in Tennessee. In 1907, after the city had been increased in size from 10 to 16 square miles by an act of the legislature, the Board of Health requested a tuberculosis hospital, reporting that there were more deaths from this and related diseases than from all other causes combined. Because of the danger of tuberculosis, the mayor asked for laws to improve the milk supply, and called attention to the need of the Health Department for a chemical and bacteriological laboratory. During the tenure of Dr. W. E. Hibbitt, who became health officer in 1908, a dispensary for tuberculosis patients was established on the third floor of the Health Department building, in anticipation of the tuberculosis hospital. In that same year, tuberculin testing of cows was begun, and there was concern for control of carriers and for supplying good clean air to the victims. In 1910, the Antituberculosis League was formed, and a 151-acre farm on Hamilton Road was purchased jointly by the city and county as the site for the new tuberculosis hospital. The hospital was completed in 1912, and expanded in 1929.

Despite these advances and precautions, Tennessee still had more deaths from tuberculosis than any other state in 1937, and that year tuberculosis was the fifth ranking cause of death in Davidson County. As a result, tuberculin testing was extended to the schools, and a regulation was passed that any teacher with an active case of tuberculosis could never teach again. The municipal code of 1941 prohibited tuberculosis patients from engaging in any work involving food handling or contact with people. Portable x-rays were introduced into the City Health Department in 1941, and use of the first mobile tuberculosis units, of which there were eight, was initiated in 1945. Even so, in 1953 tuberculosis ranked 9th as a cause of death locally, taking 67 lives, and in 1955 there were 35 deaths from the disease in Davidson County. By 1970, good case finding and antituberculous drugs had virtually eradicated tuberculosis from Nashville.

A Miscellany of Ills

From the first case of smallpox in 1817 onward, the threat of an epidemic was always present, fomented by what Dr. N. G. Tucker, the health officer in the closing years of the last century, referred to as the disgraceful situation healthwise in the workhouse, and the fact that Nashville, as a rail center, received individuals with both smallpox and scarlet fever from various areas over the state, as well as from out of state. Beginning in 1889, with the founding of the new city hospital, Dr. Tucker and the other physicians began to agitate for separate facilities for the care of contagious disease patients, with the result that in 1894 epidemics of both smallpox and scarlet fever were averted by isolating patients coming into Nashville on the trains. An arrangement was completed that year with the Board of Health of Davidson County to open a hospital for the care of smallpox patients and suspected cases.

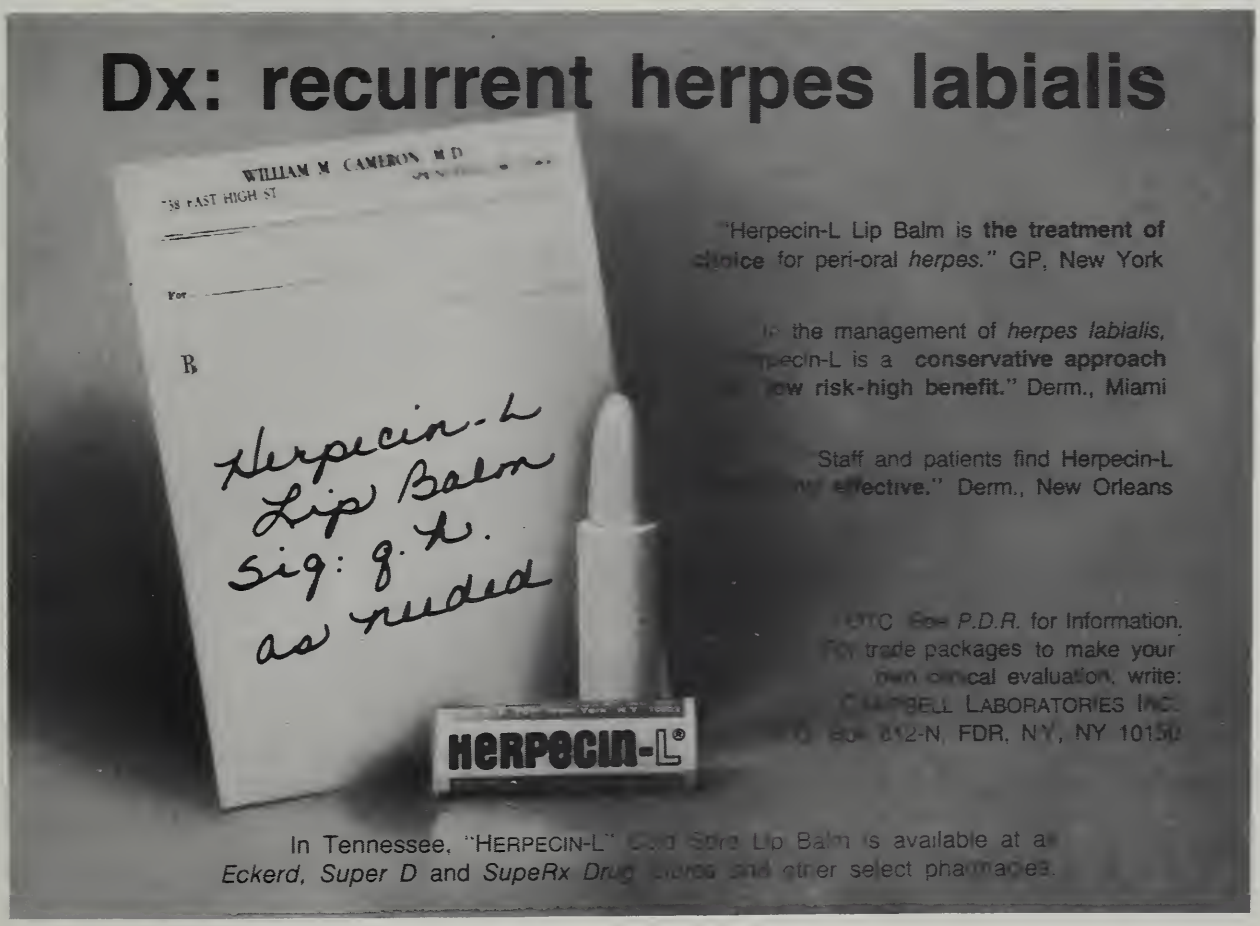
In 1905, Dr. Larkin Smith, who became health officer in 1898, took the first step toward organizing communicable disease control by establishing a Division of Disinfection. Smallpox ceased to be a major threat with the establishment of compulsory vaccination programs in the schools, and scarlet fever, with its serious sequelae of rheumatic fever and glomerulonephritis, was removed as a major source of morbidity with the advent of chemotherapeutic agents and later, antibiotics, although this decline may have been due as much to a change in the streptococcus as to drug therapy, since scarlet fever was already diminishing by the time these agents came into use.

Neither malaria, a problem in the early days of the settlement, nor yellow fever were ever as prevalent here as they were in Memphis, where epidemics of yellow fever decimated the population on at least one occasion, in 1878. On May 1, 1897, the opening day of the Tennessee Centennial Celebration, 22,000 visitors crowded the city, and although yellow fever came to Nashville with them, an epidemic was averted by heeding the warning of Dr. Tucker the previous year that all premises must be kept clean and neat, and that citizens must abstain from depositing any objectionable items in the streets, alleys, or lanes. It appears that yellow fever was never a threat after that, virtually disappearing with the turn of the century. As a result of mosquito control, malaria, which in the late 19th and early 20th centuries had caused a general summertime exodus to the surrounding mountain resorts by those who could afford it, disappeared in the 1930s.

Epilogue

The victories over disease accomplished by public health measures and antibiotics obviously did not spell the end of disease in Nashville. Far from being down and out, venereal disease still flourishes, and not just the traditional ones, or those traditionally transmitted, either. Hepatitis must now be considered a venereal disease, as must cervical cancer in some instances, and classical venereal diseases crop up in strange sites. The advance of civilization has allowed us to do more things to the environment, and secondarily to ourselves, with results that are just becoming apparent, and many that are doubtless as yet even unsuspected. Under the proper conditions, even those diseases that we consider eradicated may return.

Nashville has not yet solved its problems of sewage disposal—only some of their consequences. The fight against cancer is progressing but slowly, and that against degenerative and immune disorders has hardly begun. Except for the ravages of time, most of man's disorders, if not all of them, are preventable. Equally as important to Nashville's health as the triumphs produced by the foresight and hard work of Nashville's physicians and health officers are the failures and disasters fomented by the inertia and apathy of Nashville's inhabitants and the outright hostility of vested interests, including politicians. These are the implacable enemies of health, and they have not abated with time.



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The 101st Time

WILLIAM Y. RIAL, M.D.
President
American Medical Association

Dr. Oliver Wendell Holmes, a man of reason, compassion and great understanding, a man less impressed by those who merely voiced strong convictions than by those who had the courage to live by them, once said, "A thought may be original, though it has been uttered a hundred times before." My thought today has been uttered at least a hundred times before. But let me say, for the 101st time, that increased professional unity, not only among members of our federation, but among all physicians in all specialties, is now more important than ever before. It's important to our profession as a profession, and it's important to the patients we serve.

The importance of increased unity was clearly set forth last year in an environmental analysis by the AMA's Council on Long Range Planning and Development. The Council identified professional unity as one of three major issues that will help shape the medical environment in the 1980s and beyond. Specifically, the Council pointed to the need for greater unity among all branches of our federation, as well as increased federation support by the AMA and greater representation at the national level.

We also polled 1,000 member and non-member physicians to find out what AMA services they believed should be given top priority in the future. The poll told us that the AMA can most benefit individual physicians by representing physicians at the national level, providing up-to-date scientific information to the profession and public, establishing and implementing ethical standards for physician conduct and performance, and promoting high standards of medical education and practice.

Presented at the Interim Meeting of the American Medical Association, Miami Beach, Dec. 5, 1982.

We have attempted to heed the advice of our peers. And the result is a newer, leaner Association, an AMA that is streamlined and "revved up" to meet the new challenges facing American medicine. But as always, success in meeting these challenges depends upon individual physician involvement—your involvement and that of your colleagues in hometown America. It is you and I and our colleagues in our component societies who must stand up to address the important issues facing our profession and the nation.

We have accomplished much, in individual and local initiatives: cost effectiveness, voluntary health planning and peer review, and the formation of medicine/business coalitions, to cite just three examples, and these have helped to demonstrate to the public and to the private sector that we are committed to meeting the challenges that face us today.

If the AMA is to support such efforts effectively, then we need a strong and unified AMA to successfully meet our responsibilities in legislative, industrial and academic arenas, as well as clinical practice settings. Our current efforts have gathered strength and our activity titer is increasing, both for the individual physician, and for our organizational members.

We have centered a considerable amount of representational clout in Washington. Our Washington operation is recognized as one of the best of its kind by legislative experts both inside and outside the government. Witness the impressive effectiveness in the passage by the House of Representatives of the FTC authorization including the Luken-Lee Amendment. Every year we monitor over 87,000 pages of the Federal Register as well as 35,000 pages of the Congressional Record. By the end of this year we will have responded well over 100 times to medical-health

related issues through oral and written testimony before Congress and other federal agencies. Our new home at 1101 Vermont Avenue has increased AMA's visibility in the community as well as on Capitol Hill. Additionally, we provide periodic updates on federal legislation to component medical societies, including specialty societies.

In response to the challenges before us—and with the advice of our membership—the AMA is engaged in some major initiatives that have special implications for the federation, for physicians, and for patients. These initiatives include:

- A Health Policy Agenda for the American people that will provide long-range principles for health care.
- Our Patient Medication Instruction (PMI) program to allow patients to participate more effectively in their own prescription therapy . . . and consequently improve the compliance rate.
- The computer-based AMA/NET to provide participating physicians with immediate up-to-date medical and health-related information.
- A Diagnostic and Therapeutic Technology Assessment program to examine new and emerging medical technology.
- Our data-based Socioeconomic Monitoring System to enable retrieval of timely information on specific medical practice characteristics.

These new activities coupled with our traditional and ongoing efforts in medical education, legislative representation, and our various other channels for disseminating scientific and health information helps our federation grow in power and presence. The changing medical-health services environment also has touched physicians on other levels of their practices.

The AMA is making special efforts to help physicians adjust to such changes, including changes related to increased competition. A major report is before this House of Delegates describing those changes—and offering responses—responses that will provide some necessary tools to help physicians succeed in this new environment. To help physicians compete effectively, the AMA will inform them as to the type of practice opportunities available, how to organize practice resources effectively and where to obtain the necessary financing.

In addition to serving as a resource for demographic information, the AMA will help physicians address the problems of practice management and financing itself. Such programs demonstrate our commitment to help meet the needs of the individual physician without whose continued support no branch of the federation, including the AMA, would be able to exist.

One of the discordant and disunifying issues that is before this House is the Joint Commission on Accreditation of Hospitals rewrite of the Medical Staff Standards. We all believe that good medical practice requires that the patient who is sick enough to be admitted to an acute care hospital needs the best quality care that the medical profession can muster. But in our zeal to require this in every hospital let us remember that the legal issues that confront medical practice today make it imperative that a standard—including a JCAH standard—not be written in such a way that it gives or appears to give economic advantage to physicians.

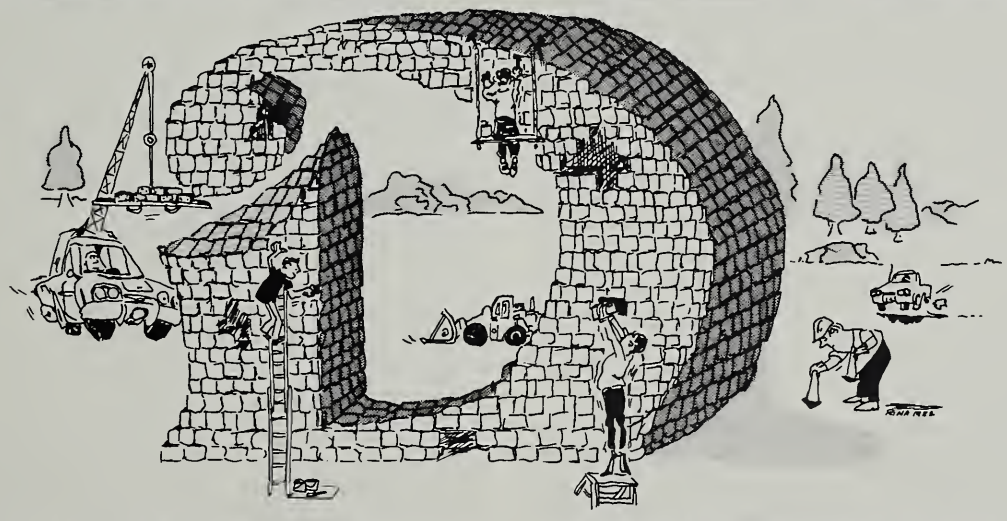
I do not propose to debate this entire issue now. But since I cannot appear before the reference committee tomorrow morning, I would like to present these thoughts today. If this House should direct the AMA Commissioners to the JCAH to support a position that would place us in legal jeopardy, what will have been accomplished? Will it guarantee that the practice of medicine will be significantly improved in your hospital or mine by the addition of those words to the Standard? Will such an action change the manner in which privileges are granted to limited licensed practitioners? Will it guarantee that each patient will be given superior care? I think not . . . but what might happen?

The AMA might be faced with a very expensive lengthy litigation which, even if our position should prevail, would not change things. There would be victory only for those who profit by litigation. A loss would decimate the resources that need to be devoted to other, more significant, issues of benefit to our patients. We cannot let such discordance come between us and our patients. We are all important to each other. And the need for mutual support extends not only to physician members and federation members but also to those individuals within our profession who are not yet part of the federation. We must do all we possibly can to persuade more of them to join us in helping to shape a bright future for our profession and for the patients we serve. But it is up to us—individually and organizational-

ly—to convince them of that. Another report coming before this House in the next few days recommends that observers from the American Dental Association and the American Hospital Association be allowed to join our House of Medicine in addressing major issues before us. Why not extend a similar invitation to other organizations not represented in our federation structure—organizations like the American Osteopathic Association and the National Medical Association—to come and share their concerns? In the long run we will all benefit by facing together what is fast becoming a new socioeconomic frontier in medicine.

John Winthrop, who became the first governor of Massachusetts, faced a similar frontier full of both problems and promise when he arrived in the New World. In assessing the situation, and the crucial needs of his constituents, Governor Winthrop said: "There is only one way to provide for our posterity. We must knit together as one individual, we must delight in each other, make each other's conditions our own, rejoice together, mourn together, labor and suffer together." I commend these sentiments to our Association for the future of our profession and its members and for the future well-being of our patients.

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Special Communication

The Problem of Drugs—An Alternative Solution

EDWARD R. ATKINSON, M.D.

Two local newspaper headlines recently caught our attention:

"Illegal Drugs—Our Newest Big Business"
"$400 Million Worth of Cocaine Seized in Tennessee"

There are some big losers here. Think of losing almost half a billion dollars. Worse than that, think of getting caught. Even worse, think of getting hooked on one of these illegal drugs with a subsequently ruined life. Big losers! However, the *biggest losers* of all are not the above but rather the silent, innocent victims, *the general public*. There is a long chain reaction involved here, and if we are to break the chain, we must look at it link by link.

People always have and probably always will do things, eat things and take things that are not good for their health, even though they know better. When a commodity is scarce, it is human nature to place a higher value on what is in short supply. Human beings seem to crave what they can't have. "Recreational drugs," for the most part, are neither very costly nor very scarce—until society passes legislation banning them. When a commodity not naturally scarce is banned, the demand increases, the monetary value increases, and the criminal element quickly moves in to take the profits.

The criminal element, visualizing enormous tax-free profits, mobilizes great ingenuity in managing supply and demand as well as sale and distribution of the newly valuable commodity. The criminal element utilizes every known method of selling its product, relying heavily on human weaknesses, on free samples, parties, peer pressure, etc. The victim is "pushed" until he is "hooked," and this leads to the devastating third step—the victim himself then turns to crime to support his addiction.

Society, which passed the initial banning legislation with good intentions, now sees the total failure of our criminal justice system to cope with the problem. The criminal element reaps greater and greater tax-free profits, all the while leaving more and more human derelicts in the wake.

As increasingly numerous drug addicts turn to crime to support their habit, holdups, assaults, robberies and even murder become everyday occurrences. The *real victims* in this chain reaction are *the innocents of society* who are in no way directly involved with the problem.

Even when the criminals are caught, society remains the loser. Not only are our police forces and court systems less than perfect, they are increasingly expensive, so that for the few that are caught and convicted, society pays an estimated $20,000 a year to imprison each one. Even worse, there seems to be *no correction* and *no cure* for most of the criminals who are apprehended.

This is a terrifying national problem! What will be the end result? Will we become a devastated society, afraid to go out on the streets and afraid to stay at home? How can we break this destructive chain reaction?

There seems to be little or no chance that we can change human nature. Furthermore, there seems to be no public willingness to finance the great changes that would speed up and improve our entire criminal justice system, including our prisons.

The only link in this destructive chain that seems vulnerable to change by society is the point at which society entered the chain in the first place, the banning legislation. "Prohibition" in the '20s didn't work, and this prohibition likewise is not working. Worse still, we have created a monster that is engulfing more and more innocent victims, and there is no relief in sight.

The *only viable solution* may be to abandon all attempts to control drugs and to let them become freely and relatively cheaply available, thereby removing the profits that attract criminals. The two positive results should be the removal of crime from this chain and the freeing of millions of innocent victims from lives of fear. The negative result might be allowing some people to destroy themselves by drugs, but they are already doing this every day. The balance should be overwhelmingly toward the positive side.

Society could then reenter the chain at another point—the point of spending public funds on education, helping to decrease the number of drug victims and helping to improve our national mental health.

Our statesmen are sensitive to such problems, and our politicians will respond to public opinion. It is up to all of us innocent victims to mobilize this public opinion, and *the time is now*!

1760 Madison St.
Clarksville, TN 37040

Burkitt's Lymphoma

CHARLES E. KOSSMANN, M.D., Editor

LEWIS WALKER, M.D.
(Resident Physician)

A 34-year-old white male grocery store clerk who complained of constipation, fatigue, malaise, and pain in the lower back and extremities, some eight to ten months before admission had noted masses in the axillae. Four months later pain in the jaw began and was unrelieved by extraction of several teeth. This was followed by lower back pain and bilateral lower extremity discomfort. Headache, stiffness of the neck, diplopia on upward gaze, and pedal edema were symptoms that occurred at uncertain times. For three weeks he had been having night sweats, and fever up to 101°F was noted three days before admission, for which he was given a single injection of penicillin and erythromycin. He had lost approximately 10 lb over the previous month. The past medical history was noncontributory.

The patient was a thin white man in no apparent distress, but was diaphoretic and appeared toxic. Blood pressure was 138/82 mm Hg, heart rate was 120 beats per minute and regular, with no orthostatic change in either. Temperature was 101°F orally and the respiratory rate was 16/min. There was some proptosis but the pupillary and extra-ocular muscles were intact. Several teeth were missing from the mandible. There was some discomfort on hyperextension of the neck, and bilateral rubbery nonfixed lymph nodes were present in the cervical regions. The axillae showed several lymph nodes of golf ball size. An S_4 heart sound was audible. The liver span was approximately 11 cm, and there was 3+ pitting pedal edema. The neurological examination was negative. The rectal stool was brown and guaiac positive.

The hematocrit was 34.4%, mean corpuscular volume 87 cuμ, the mean corpuscular hemoglobin concentration 34.4%. There were five nucleated red blood cells per 100 white blood cells. The erythrocyte sedimentation rate was 80 mm/hr. The white blood cell count was 8,900/cu mm with 52% neutrophils (38% segmented, 14% band forms), 2% eosinophils, 30% lymphocytes, and 13% monocytes. The platelets were normal. Except for a serum sodium of 133 mEq/liter, the electrolytes, blood urea nitrogen, and glucose were normal, alkaline phosphatase was 188 IU/liter, and total bilirubin was 0.3 mg/dl. The gamma glutamyl transpeptidase (GGTP) was 49 IU/liter (normal 4-60), the lactic dehydrogenase (LDH) was 470 IU/liter (normal 25-100) but the liver transaminases were normal. The urine showed 3 to 5 white blood cells per HPF. The VDRL and the monospot test were negative. Serum protein electrophoresis showed some decrease in albumin but a relative increase in the alpha fraction. Intradermal testing with histoplasmin and tuberculin was negative, and all blood cultures were sterile. A computerized tomographic (CT) scan of the skull was normal. Lumbar puncture gave no obtainable opening pressure; the spinal fluid contained 9 lymphocytes per cu mm, protein 52 mg/dl, glucose 46 mg/dl, with a peripheral glucose of 107 mg/dl. India ink staining of the fluid was negative and cultures were sterile. A second lumbar puncture for further study of the pleocytosis revealed poorly differentiated lymphocytes. Roentgenograms of the nasal accessory sinuses and of the chest were normal.

No serologic tests for infection with the Epstein-Barr virus were performed.

In the hospital, dependent edema increased and oral temperature ranged between 99°F and 100°F. An upper gastrointestinal series showed a submucosal mass in the duodenal bulb with an overlying ulcer 3 cm in diameter. Findings on abdominal CT were consistent with extensive periaortic and pericaval adenopathy. Biopsies of the bone marrow and the axillary nodes revealed Burkitt's lymphoma.

The final diagnosis was Burkitt's lymphoma, stage D, for which he was transferred to the National Cancer Institute for chemotherapy.

LUTHER L. BURKETT, M.D.
(Professor of Medicine-Hematology)

An interesting feature of this patient is the duration of his symptoms and in particular the cervical adenopathy. Burkitt's tumor is the most rapidly growing human tumor known, with a doubling time of about 24 hours. There is also a 70% cell death rate, so that there is a net gain in tumor mass of about 30% per day, still an impressive rate. Once the patient develops enlarged nodes or masses, they seem to grow explosively right under one's eyes. This leads me to wonder whether he may have had infectious mononucleosis or an Epstein-Barr (E-B) viral infection several months ago and subsequently developed Burkitt's lymphoma, perhaps secondary to immunodeficiency, as is known to occur.

Another finding that is out of line in this case is the serum, LDH, which has been shown to be directly related to mass of the tumor. The LDH was relatively low—only 470 IU/liter. He obviously had a massive tumor load in the abdominal cavity and elsewhere; I would have expected the LDH to be in the range of 2,000 IU/liter or so.

From the Department of Medicine, University of Tennessee, 951 Court Ave., Memphis, TN 38163.
Presented July 14, 1982.



Figure 1. Dr. Denis Burkitt during a visit to University of Tennessee Medical Center in 1977.

The lymphoma under consideration was described by Denis Burkitt,[1] a British surgeon (Fig. 1), on a visit to Memphis in 1977. He first described the lymphoma in 1958 while practicing surgery in Uganda, where he was struck by the unusual incidence of tumors of the jaw in young African children. He noted that there was an unusually high incidence of this tumor in a "lymphoma belt" near equatorial Africa in areas where the temperature was regularly higher than 60°F and the annual rainfall more than 30 inches, suggesting that an infective agent was involved and that there perhaps might be an insect vector in those hot, humid areas. His observations have led to many studies of this tumor because of its possible infectious origin.

Burkitt's tumor is an unusual lymphoma in that cell cultures from it can be maintained indefinitely, in contrast to cultures of normal lymphocytes or other lymphoma cells, which can be maintained for only a short period of time.[1] In one of the tumor cultures in 1964 a herpes-like virus was identified which has come to be known as the Epstein-Barr (E-B) virus after the investigators concerned and the particular cell line in which it was first found. Some time after the identification of the virus in Burkitt's lymphoma, the E-B virus was established as the cause of infectious mononucleosis. This conclusion was based on viral studies done on undergraduate students at Yale, in whom there was no evidence of E-B virus infection serologically before they had clinical infectious mononucleosis, but who regularly showed such evidence after having had the disease. Further, it was noted that clinical infectious mononucleosis never occurred in those students who had serologic evidence of previous E-B virus infection.

Antibodies to the E-B Virus in Endemic and Nonendemic Burkitt's Lymphoma

A number of antibodies against the E-B virus can be demonstrated (Fig. 2) by the use of an indirect immunofluorescent technique using as a substrate a smear of a lymphoblastoid cell line infected by an E-B virus.[1-3] After an acute infection with E-B virus (infectious mononucleosis) there is an early appearance of an antibody against a viral capsid antigen (VCA). This antibody initially is IgM, the serum level of which falls off fairly rapidly (a few weeks). Subsequently, however, an IgG anticapsid antibody (anti-VCA) appears and persists indefinitely. This is one of the ways we are able to recognize that a patient previously had an E-B virus infection.

Other antibodies can be recognized. Two also appear early (EA, early antigen). One is referred to as a diffuse type, anti-EA (D), because on immunofluorescence there is a diffuse pattern in the infected cell; it appears quickly and disappears soon after; if found, it indicates a recent E-B viral infection. The other early antigen is referred to as the R (restricted) antigen; by immunofluorescence it is seen in a number of patients, appearing, however, a little later and persisting a little longer than the D type. Sometime later in the course of or after the illness, an antibody against the nuclear antigen of the E-B virus (anti-EBNA) appears in the serum. This an-

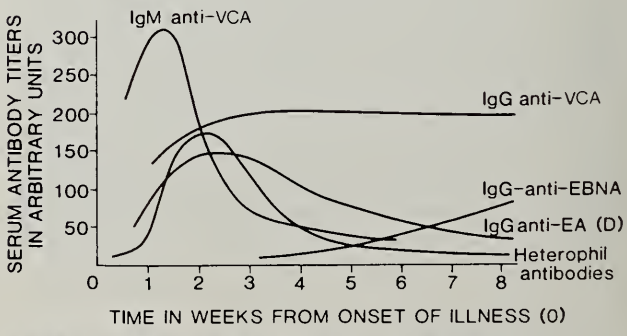


Figure 2. Serologic changes following E-B virus infection. VCA, viral capsid antigen; EA (D), diffuse early antigen; EBNA, Epstein-Barr nuclear antigen (from Wintrobe[3]).

tibody also persists indefinitely, and along with the IgG viral capsid antibody (anti-VCA) identifies the patient who has had previous infection by the E-B virus.

Several interesting observations have been made in patients with endemic or African Burkitt's lymphoma.[1-4] Virtually all will show a number of the serum antibodies mentioned. The antibody against the viral capsid antigen of the IgG type indicates that they had previous infections. Infections by the E-B virus are common in the lymphoma belt, 95% of the patients having evidence of having had such infection before the lower limit of the age range of Burkitt's lymphoma. Actually the capsid antibody is present in higher titers in patients who get Burkitt's lymphoma than in a control population. Unlike the patient who has a previous but now inactive E-B virus infection, the patients who have Burkitt's lymphoma usually will show an antibody to one of the early antigens, either R or D, suggesting persistent or recurrent infection. The lymphoma patients also have antibody against a membrane antigen and a nuclear antigen. In the case of African Burkitt's lymphoma the tumor cells themselves can be demonstrated to contain the E-B viral nuclear antigen. It is also possible to show by molecular hybridization that there is E-B viral DNA in the tumor cells. Further, it has been shown that the tumor cells contain multiple genomes of the E-B virus DNA.

In nonendemic areas, as in the United States, similar antibodies can be found in only 15% of patients with Burkitt's lymphoma, suggesting that E-B virus may have an etiologic role in a few.[2] In the great majority of nonendemic patients these immunologic markers cannot be found, suggesting that the E-B virus has no causative role.

Relation of E-B Virus to Burkitt's Lymphoma

The question then arises as to whether the E-B virus is actually the cause of African Burkitt's lymphoma or whether the association of viral antibodies is a chance occurrence.[1-4] We cannot answer this definitely at the present time. The findings are suggestive, of course, but they don't exclude the possibility that the E-B virus may simply be a "passenger virus," which continues to be present in cells that have undergone malignant transformation. If the E-B virus is the causative agent, then it requires some co-factor, since the great majority of patients in both Africa and America who acquire an infection with the E-B virus don't develop Burkitt's lymphoma. The co-factor may be some type of immunodeficiency. In this country there have been several cases of Burkitt-like lymphomas appearing in patients with immunodeficiency. For example, there is a sex-linked recessive immunodeficiency involving predominantly T-cell immunity in which a Burkitt-like lymphoma has appeared after a clinical E-B viral infection. Also, Burkitt's lymphoma has been described in a renal transplant patient who was on immunosuppressive therapy. An African patient with Hodgkin's disease had an elevated anti-VCA titer but low titers of the early antigen, the membrane antigen, and the nuclear antigen. The patient was treated with mechlorethamine with complete remission of the Hodgkin's disease, but a few months later developed Burkitt's lymphoma. With this development there was a further rise in the anti-VCA titer and a sharp increase in the early antigen of the restricted type and later an increase in the early antigen of the diffuse type suggesting reactivated E-B virus infection. Later there was a rise in titer of the anti-EBNA. These data suggest that in this patient the chemotherapy for Hodgkin's disease created an immunodeficient state, with Burkitt's lymphoma developing secondary to a new E-B virus infection. In the majority of nonendemic cases of American Burkitt's lymphoma no relationship can be shown between the tumor and the E-B virus, and E-B virus DNA cannot be shown in tumor cells.

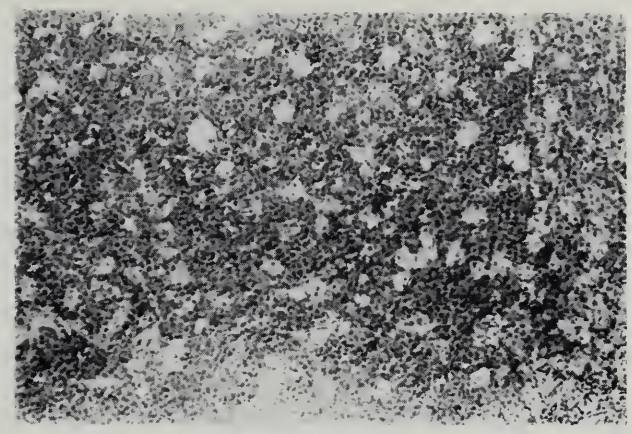


Figure 3. Cervical node biopsy of patient showing dark background of tumor cells and dispersed histiocytes with retracted cytoplasm giving "starry sky" appearance.

Pathology

Fig. 3 is a lymph node biopsy from today's patient showing the characteristic histology. There is a monotonous background of neoplastic tumor

TABLE 1

CONTRASTING FEATURES OF ENDEMIC AND NONENDEMIC BURKITT'S LYMPHOMA

	Endemic	Nonendemic
Age	5-12	2-27
Primary jaw	Usual	Rare
Primary abdominal	Rare	Usual
Nodal involvement	Rare	Common
Marrow involvement	Rare	Often
CNS involvement	Rare	Often
Leukemia	Rare	Occasional

cells which appear dark with lighter areas interspersed throughout the tumor representing reactive histiocytes frequently showing ingested debris. The cytoplasm of the histiocytes is retracted to produce clear areas which account for the "starry sky" appearance. The bone marrow of this patient showed a similar infiltrate. The characteristic features of the tumor cells are a very monomorphic appearance with a high nuclear/cytoplasmic ratio and multiple small nucleoli.

The bone marrow of our patient showed immature lymphocytes which are larger than those seen in acute lymphocytic leukemia. Occasionally the patient may present as an acute leukemia but the blood will show the characteristic lymphoblast of the Burkitt type. Parenthetically, the Burkitt lymphoblast has been shown to be the B-cell with surface immunoglobulin, usually monoclonal IgM. It is relatively early in the pathway of the B-cell differentiation, however, because the cells lack receptors for complement of the Fc fragment of immunoglobulin, markers found in later stages of development.

Clinical Features

There are clinical differences between the endemic and nonendemic types of Burkitt's lymphoma (Table 1).[2,5,6] The sporadic cases generally occur at a later age, although there is a wide range; the mean age for the nonendemic type is about 11 or 12 years, whereas in the African type it is about seven years. The great majority of patients with the endemic variety will present with primary tumors of the mandible or maxilla, rare in this country or in other nonendemic areas where the initial finding is more often with intra-abdominal masses. In the latter, the origin of the tumor is not in lymph nodes per se, but is believed in the majority of cases to arise in the gastrointestinal tract with secondary involvement of regional lymph nodes. Retroperitoneal nodes may be involved, producing large retroperitoneal masses. Primary involvement of the ovaries is fairly common and there may also be primary involvement of the kidneys or the adrenals, but strangely enough, in neither type is primary lymphoidal tissue involvement common. Secondary nodal involvement occurs infrequently in the endemic variety but is fairly common in the nonendemic type. When it occurs, it is usually regional rather than generalized. These patients can sometimes have widely disseminated disease but still not have the generalized lymphadenopathy expected in most disseminated lymphomas. Bone marrow and central nervous system involvement are rare in the African type but occur often in the nonendemic type, at least in the later stages of the disease. Leukemic transformation also occurs occasionally in the nonendemic type.

The American Burkitt's tumor at necropsy displays widespread involvement of the GI and GU tracts and the central nervous system.[5,6] One-third will have involvement of the heart, one-third will have involvement of endocrine organs, and one-third will have involvement of musculoskeletal structures, including bone marrow. Nodal involvement tends to be regional rather than disseminated or generalized.

Staging

Staging of Burkitt's tumor (Table 2) differs from the staging of other lymphomas.[1,7] The only thing that is of very much importance from the standpoint of therapy and prognosis is obtaining a general idea of the extent or bulk of the malignant disease. One staging system that has been used at the NIH is as follows: A, involvement of a single extra-abdominal site; B, involvement of more than one extra-abdominal site; C, intra-abdominal tumor; and D, intra-abdominal tumor

TABLE 2

CLINICAL STAGING OF BURKITT'S LYMPHOMA*

Stage	Extent of Tumor
A	Single extra-abdominal site
B	Multiple extra-abdominal sites
C	Intra-abdominal tumor
D	Intra-abdominal tumor with involvement of $\geq$ 1 extra-abdominal sites
AR	Stage C but with $>$ 90% of tumor surgically resected

*From Ziegler.[7]

with involvement of one or more extra-abdominal sites. A fifth category, AR, is represented by patients who had an abdominal tumor, more than 90% of which has been resected. This is a special category because these patients have a small tumor bulk as a result of the resection and therefore have a more favorable prognosis than patients in stage C or D.

As noted earlier, the LDH can be used to evaluate the extent of the patient's disease and prognosis.[5] Patients in stage C or D generally have much higher levels than those with limited disease. It is also of interest that in those patients who have had a resection of abdominal disease, the level of LDH is much lower than in similar patients who have not had resection. There is also a correlation between the level of the serum LDH and response to therapy. Those patients who have a complete response have lower levels of LDH than those who have an incomplete response, or who have the metabolic complications of therapy, another indicator of a large tumor load.

Treatment

One of the things that Burkitt discovered, a bit by accident, is that the most effective therapy is cytoxan given in a single large dose and repeated as necessary.[1] He had to give the cytoxan in this way because of constraints on prolonged hospitalization and detailed follow-up of patients imposed by local conditions. He gave the cytoxan to certain patients in a single large intravenous injection repeated two or three times as necessary, and found that in many of these he obtained lasting remissions and presumed cures. Remissions did not occur in patients he tried to treat with daily small oral doses of cytoxan. This probably relates to the very rapid growth of the tumor. Table 3 shows one schedule of therapy that has been used at the National Cancer Institute and has been proven to be as effective as any other.[7] Cytoxan in a dose of 1,000 mg/sq m of body surface area and vincristine in a standard dose are given on the first day. Methotrexate is given intravenously on days two and three, and intrathecally on days one and four. This cycle of therapy is repeated every three weeks, until the patient has a complete remission, after which one or two additional cycles are given. Intrathecal methotrexate is given because, as in other lymphomas or in acute lymphoblastic leukemia in children, although the disease may be eradicated systemically there may be central nervous system recurrence because the agents don't cross the blood-spinal fluid barrier.

TABLE 3

CHEMOTHERAPY OF BURKITT'S LYMPHOMA

Drug	Dose (mg/sq m)	Route	Schedule
CYT	1,000	IV	Day 1
VCR	1.4	IV	Day 1
MTX	15	IV	Days 2, 3
MTX	15	IT	Days 1, 4

Repeat every three weeks to complete remission

TABLE 4

ACUTE TUMOR LYSIS SYNDROME

Hyperuricemia
Hyperphosphatemia, hypocalcemia
Azotemia
Hyperkalemia
Lactic acidosis

The response to therapy will depend upon the extent of the disease.[7] Lasting remissions are obtained in patients who have limited disease, stages A or B, or in those with abdominal masses more than 90% of which has been resected (stage AR). About 80% of these better risk patients will have complete remissions and will survive for at least two years, which generally means cure. Patients with more extensive disease, as in stages C and D, have a much poorer prognosis, with lasting remissions in less than 40% of them. The response to treatment also depends on age, the younger patients (under 13 years) faring better with chemotherapy. Overall, the long-term remission rate of Burkitt's lymphoma in this country is about 40% with treatment as outlined.

The Tumor Lysis Syndrome

One of the problems that occurs with chemotherapy is a complication we have known about ever since starting to use nitrogen mustard for Hodgkin's disease, the so-called acute tumor lysis syndrome (Table 4). This is likely to occur in Burkitt's lymphoma and may be quite severe.[8] It has been reported to cause death in as many as 10% of the patients who are treated vigorously with chemotherapy. The metabolic complications that characterize the syndrome are the result of

(Continued on page 176)

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 29-year-old man was admitted to St. Thomas Hospital with periumbilical pain, fever, elevated white count and suspected appendicitis. He had no history of cardiovascular disease. His blood pressure was 130/82 mm Hg. There was no clubbing or cyanosis. He had no rubs, murmurs or gallops, chest was clear to auscultation, and he gave no history of bronchitis or sinusitis. An electrocardiogram was obtained (Fig. 1). In the event he proceeds to the operating room, where should the surgeon make his incision?

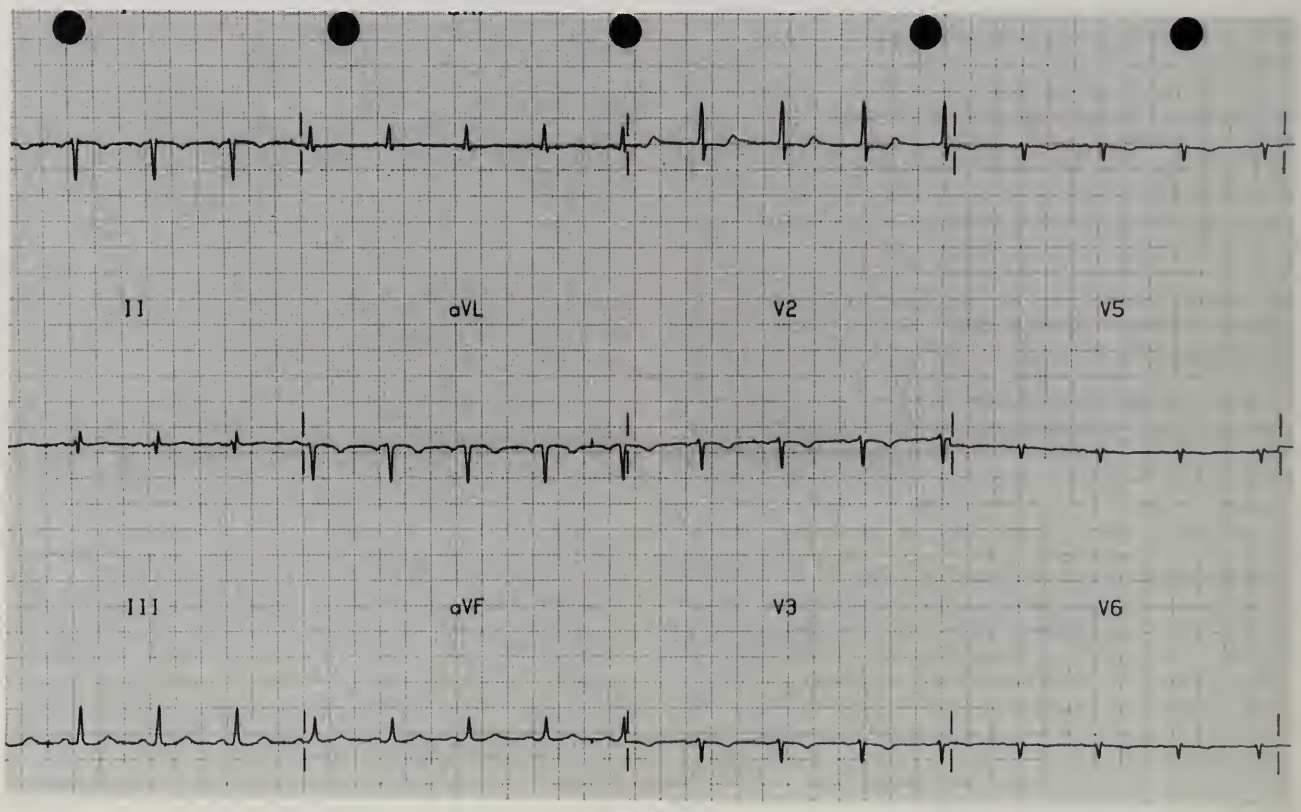


Figure 1

Discussion

This electrocardiogram shows striking right axis deviation with a deep S wave in standard lead 1 and a prominent R wave in aVR. The prominent R wave seen in V_1 disappears in V_2 and although the voltage progressively diminishes in V_2 through V_6, there is very little change in QRS morphology in these leads.

If the arm leads are not reversed when the tracing is obtained and if the rhythm is normal, inverted P waves in standard lead 1 are pathognomonic of dextrocardia with situs inversus totalis. (The most common cause of inverted P waves in standard lead 1 is technical error with right-left arm lead reversal.) The rightward orientation of the P wave (producing an inverted P wave in standard lead 1) relates most closely with the location of the superior vena cava and accompanying sinus node. If the superior vena cava is normally located on the right the P wave will be upright in standard lead 1. If, however, the superior vena cava is on the left, atrial depolarization originates on the left and the direction of depolarization is rightward.[1] The location of the vena cava (and therefore of the P vector) also correlates strongly with orientation of the abdominal viscera. It has long been recognized that the atria "exhibit a strong tendency" to conform

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

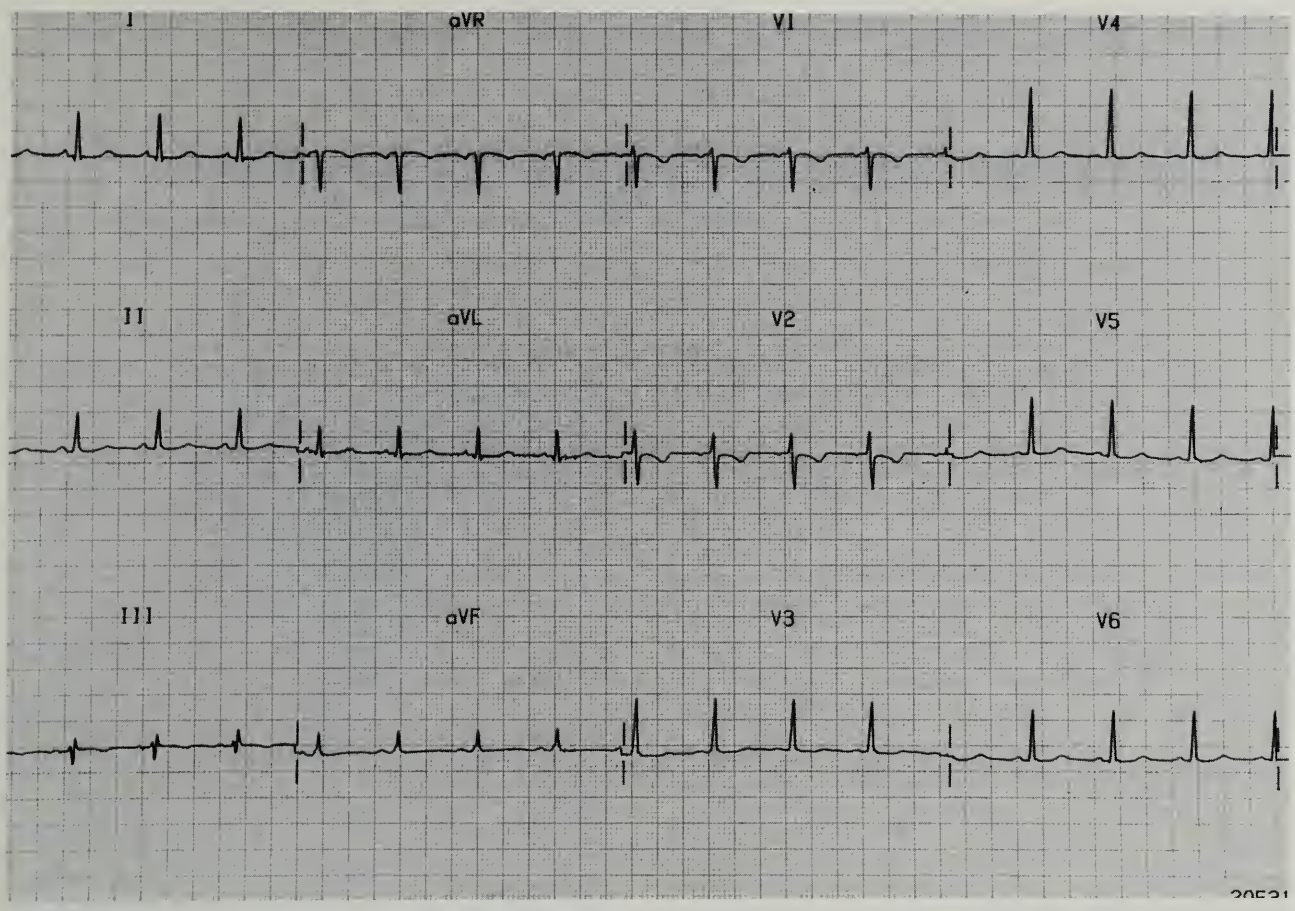


Figure 2

to the general orientation of abdominal organs. Therefore, the anatomic right atrium is located on the same side of the body as a tri-lobed lung and opposite from the position of the stomach and spleen.[2]

Dextrocardia (with situs inversus totalis) is rare and has been estimated to occur in one or two per 10,000 population with an equal male/female distribution. Congenital heart disease in this setting appears to be infrequent.[3] The incidence of Kartagener's syndrome (bronchiectasis and sinusitis accompanying dextrocardia) is estimated at 12% to 22% of those with dextrocardia.[4]

When dextrocardia is unaccompanied by situs inversus totalis the atria are usually in the correct (situs solitus) position even though the heart is located on the right. In this setting the P vector is usually normal. The incidence of congenital heart disease in this setting is quite high.

Because of their anatomic mirror imaging, patients with situs inversus totalis should have electrocardiograms obtained in a mirror image fashion. Electrocardiograms obtained with right-left reversal of the limb leads and with the chest leads placed in a mirror image position over the right chest (instead of the left chest) will display a "normalized" electrocardiographic recording. This may be evaluated diagnostically just as in situs solitus (normal visceral positioning). An electrocardiogram was obtained on our patient by exchanging the right and left arm leads and positioning the precordial leads over the right precordium. This is interpreted as a normal electrocardiogram (Fig. 2).

As the location of the atria usually follows the location of the abdominal viscera, this patient's appendix should be located on the left. Abdominal films confirmed this finding by displaying a rightsided stomach bubble and a left infradiaphragmatic density consistent with the liver. The patient's symptoms improved and surgery was not performed.

CONCLUSION: Situs inversus totalis (dextrocardia).

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Multinodular Goiter in Thyroid Hemiagenesis

ALAN L. GRABER, M.D.

A 57-year-old woman was admitted for evaluation of a thyroid nodule. She had discovered it four months previously while examining her neck in the mirror. Since then, it had enlarged, despite treatment by her physician with a small dose of levothyroxine sodium (Synthroid), 0.025 mg daily. There was no pain in the neck, no difficulty swallowing, and no history of irradiation to the face or neck. There was no family history of thyroid disease or goiter.

Examination revealed a healthy-appearing woman who was clinically euthyroid. Her weight was 126 lb. She had no lymphadenopathy. There was an irregular, 2 cm non-tender nodule in the right side of what appeared to be the thyroid isthmus. No definite thyroid tissue could be felt in the left lobe of the thyroid. The rest of the physical examination was normal.

Measurements of serum thyroxine (T^4) and triiodothyronine (T^3) were normal. A technetium thyroid scan showed a normal-appearing right lobe with markedly decreased activity in the left lobe (Fig. 1), and a thyroid sonogram showed a loculated, septate cyst in the right lobe just to the right of the midline.

At surgery on Aug. 12, 1982, the right lobe appeared to have multiple nodules. There was really no visible thyroid tissue on the left. A total thyroidectomy was performed. The postoperative course was uneventful, and the patient was discharged on levothyroxine sodium, 0.2 mg daily.

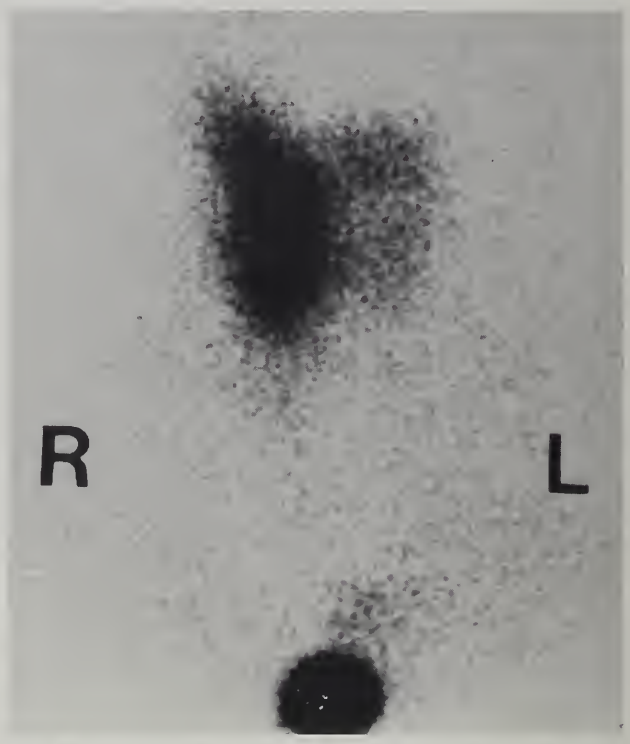


Figure 1. Thyroid scan showing a normal right lobe and greatly decreased activity in the left lobe. At surgery virtually no thyroid tissue was found on the left side.

Discussion

This case is one of thyroid hemiagenesis. The thyroid scan shows a normal-appearing right lobe, and the small amount of uptake to the left of the midline probably represents minimal activity in the vestigial left lobe. When the gland is composed of only one normal lobe and the isthmus, the scan sometimes resembles a hockey stick. The gland in this case does not have the characteristic hockey stick configuration. There is subnormal activity in the left lobe. The absolute absence of the left lobe could have been proven by repeating the thyroid scan after TSH injection. However, in this case, the absence of the left lobe was confirmed at surgery.

The differential diagnosis of thyroidal hemiagenesis includes an autonomously functioning nodule with suppression of extranodular tissue (this could have been excluded with thyrotropin stimulation test), unilateral inflammatory disease, primary neoplasm, and infiltrative processes. Women account for 75% of reported cases. The left lobe of the thyroid was missing in 80% of reported cases, and the isthmus is sometimes present and sometimes absent. In the remaining thyroid tissue a variety of pathologic states have been identified, including carcinomas, cystic lesions, and even hyperthyroidism.[1]

Surgery is not necessary unless there is a pathologic process in the remaining thyroid tissue. In this case, surgery was necessary because of an enlarging cystic multinodular goiter, which proved to be composed of adenomatous goiter with hyperplasia. The hyperplasia would be expected as compensatory response to the absence of half the thyroid gland.

From St. Thomas Hospital, Nashville.

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A Step in the Right Direction

CAROL COTHRON

A family brings their very ill infant to their pediatrician's office to be examined and treated. The child is listless and dehydrated due to severe attacks of diarrhea. The parents state that the infant became ill due to drinking the family's contaminated well water. Furthermore, the parents declare the contamination is due to a landfill operation adjacent to their property.

If you as a physician were faced with a similar situation, with whom would you consult to gain information regarding possible environmentally caused symptoms?

There is a new unit of Environmental Epidemiology in the Tennessee Department of Public Health that deals with such incidences. It is a counterpart to the Communicable Disease Control Division. The Environmental Epidemiology group was formed specifically to respond to chemical/toxic substance exposure problems across the state. Tennessee is the first southern state, and one of approximately six across the nation, to establish such a unit. The main objective is to answer the need for immediate technical response to toxic substance problems by analyzing environmental hazards, and assisting in evaluating the health-risks related to exposure. Unlike the Communicable Disease Control sections of today, however, Environmental Epidemiology is in a position of having to start at "square one." Communicable Disease Control has over the years built a strong network of information, support, informational services, and contacts in research. Most of the information is easily accessible, readily available, and well documented. The environmental epidemiology field is relatively new, with its information network undeveloped and its documented research extremely limited. The known health effects of most environmental contaminants are currently imprecise and inconclusive, at best. The amount or concentration of a suspected substance, the mode of contact, the compounds present, the length of time of contact or exposure, the parts of the anatomy exposed, the age of the exposed person, the reaction time, and especially the symptoms are all variables with which to be concerned. Symptoms caused by contact with chemical/toxic substances run the gamut from none, to dermatitis, to physical impairment, to death—all on a sliding time frame from acute to chronic.

With the chemical industry in this country producing hundreds of new chemical compounds each year, the odds of being exposed to chemical/toxic substances becomes greater with each passing day. It is not possible to prevent accidents involving hazardous materials, and the subsequent human contamination, but it is feasible to be prepared for these events. The Environmental Epidemiology Unit is attempting to meet this challenge.

The Unit is drawing together a wide range of expertise that includes toxicology, industrial hygiene, and nursing, all with broad backgrounds, skills, and experience in dealing with environmental concerns. Though the Unit does not currently have a medical epidemiologist on staff, the Department has asked all of its physicians to provide assistance as needed. The Unit will interface with regional and local county health department physicians as well as private physicians across the state.

One of the first steps taken by the group has been toward the development of a comprehensive chemical and toxicological reference library that includes chemical listings, cross-referencing, and any available information on health effects and studies involving chemical/toxic substances. The Unit is also in the process of establishing contact with other state, federal, and local agen-

From the Tennessee Department of Public Health, Nashville.

cies, and identifying key people who might provide valuable information, assistance, and response at some point. All of this information is aiding in the compilation of a call list for quick reference, and is helping Environmental Epidemiology to begin to build its own "network."

As for responding to chemical/toxic substance contamination cases, each will be fully investigated, as time permits. Environmental Epidemiology was created to serve the Department of Public Health and the citizens of Tennessee. By providing pertinent and detailed information regarding a given situation and attempting to allay extreme emotionalism by being armed with technical data, Environmental Epidemiology plans to develop a high level of credibility among the citizens and the medical community in the state. The Unit welcomes contact and/or response from medical personnel from both the public and private sectors of Tennessee and plans to work closely with them in the future. The Unit can be contacted by mail or phone—Gerald E. Ingram, Director, Environmental Epidemiology, Tennessee Department of Public Health, TERRA Building, 4th Floor, 150 Ninth Ave. North, Nashville, TN 37203, phone (615) 741-5683.

Medical Grand Rounds . . .

(Continued from page 171)

massive dissolution of the tumor, with release of uric acid, potassium, and phosphate, the last leading to hypocalcemia and renal failure. Lactic acidosis is not the result of tumor lysis, but often complicates the other metabolic problems.

Patients with this complication are difficult to treat and require skillful management. The regimen used at the NCI along with chemotherapy is shown in Table 5, and includes allopurinol, fluids, bicarbonate, and hemodialysis.[8] Allopurinol is given in a dose of 500 mg/sq m of body surface every 24 hours for at least three days, and continued after that as indicated by the serum uric acid level. Liberal amounts of fluid, at least 3,000 ml/sq m/24 hr, are given. Alkalinization with bicarbonate is used to prevent uric acid nephropathy, the dose being 50 mEq/liter intravenously. Hemodialysis is instituted promptly if serum potassium rises higher than 6 mEq/liter, serum uric acid 10 mg/dl, creatinine 10 mg/dl, or serum phosphate 10 mg/dl. Symptomatic hypocalcemia is also an indication for hemodialysis.

TABLE 5

THERAPY OF TUMOR LYSIS SYNDROME

Allopurinol 500 mg/sq m/24 hr x 3 days	
Fluids 3,000 ml/sq m/24 hr	
Bicarbonate 50 mEq/liter IV	
Hemodialysis:	
Potassium	> 6 mEq/liter
Uric Acid	>10 mg/dl
Creatinine	>10 mg/dl
Phosphate	>10 mg/dl
Symptomatic hypocalcemia	

Editor's Note: Burkitt's lymphoma, though rare, is considered a desirable Medical Grand Rounds for publication, first because it points up the probable relationship between viral infection and a neoplasm and also because it is a tumor that responds well to early intensive chemotherapy. (C.E.K.)

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George W. Holcomb, Jr.

Neglected Topics

A year ago when I was planning the first President's Page I thought of a long list of topics I wished to discuss with you, my colleagues. As we come to the closing months of this year I realize that the major problems we faced in 1982 have by necessity made their way into print but some other important subjects have been regrettably neglected. I'd like to mention two of them now—ethics and women.

I feel that in the years ahead ethical concepts will continually be more difficult to translate to our patients and to the younger physicians entering our profession. We in medicine today have grown up with the older physicians setting standards regarding the way we deal with each other and with our patients. (Who among us has not heard about the appealing bedside manner of some of our predecessors?) Formerly, medical societies were smaller and contact with younger and older colleagues was closer. Respect between physicians came naturally as did the mutual trust found within the doctor-patient relationship. In an era of advertising, the promotion of competition, and the misunderstandings of the press about the ethical practice of medicine we should guard against irresponsible but more often impulsive criticism to patients and their families about other physicians' care. This is certainly not to say that flagrant violations of adequate care should be ignored nor is it a plea for any cover-ups. It is only a reminder that often there are reasonable alternatives to medical treatment.

Our medical ethics dictate that we be dedicated to the highest quality of treatment and to compassionate attention to the sick. With these patients we must maintain honesty at all times but it need not be brutal as we report our medical findings. We should take care to avoid reporting premature conclusions before medical facts are available. Though we have an obligation to prepare patients and families for inevitable events we should not destroy all hope while families and patients are so vulnerable.

I have long wished to acknowledge the tremendous contribution of the women in our lives. As I walked into the doctors lounge of one of our hospitals recently I saw a pediatrician's wife patiently waiting while he gave advice to one of his mothers on the telephone. I wonder if we often enough stop to realize how many hours our spouses wait while we diagnose, prescribe, encourage and comfort those who need us. In many instances these wives carry the major responsibility in our churches, our schools, our homes, and our communities. Much of their contribution in these personal areas goes unnoticed and is taken for granted by the busy physician when in reality the responsibilities they shoulder are extraordinary.

All those wives who have become members of our auxiliaries both on the state and local levels represent us well. They have brought positive attention to our profession with organization of and participation in health career programs and special doctors day activities at the hospitals. Health museums have been established in East and West Tennessee and a Health Hall learning center in Nashville. Health-related projects have been introduced into elementary and high schools. Auxiliary members have enthusiastically raised many thousands of dollars for medical education and research. They have worked from one end of this state to the other to emphasize better health in their local communities. Our medical efforts are definitely enhanced by the very active part they play in community service through Auxiliary-related activities.

Through the years the TMA Auxiliary has had splendid leadership and this year is certainly no exception. The current officers have demonstrated energy, enthusiasm and expertise in performance of their duties.

Our spouses have earned the respect of the community and should receive a very large THANKS from all of us.

George Holcomb Jr MD

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MARCH, 1983

editorials

In Which We Serve

The urge to survive being strong in them, wild animals run in packs. They set up guards at night, and even use their older members as decoys for predators. There are, it is true, children's stories about animals that take it into their heads to go their own way—mavericks, they are sometimes called—but those stories are fashioned after the human experience. They are fables. Because a cattleman named Sam Maverick was too kind-hearted to brand his cattle, his neighbors helped themselves to his herd, on the "assumption" that since the cattle were unbranded, they belonged to no one and were fair game. A *maverick*, then, is an unbranded calf, one that "belongs to no one"; hence, a person who goes his own way, who belongs to no one, is also called a maverick. There is no such four-footed animal. Not being able to reason, they have no better sense than to stick together.

Not man, though. His history is one of sedition, secession, treason, and rebellion, both individually and in groups small and large. Man's thinking gives him identity problems. A zebra knows it is not a lion, and it also knows which herd it belongs to. It knows instinctively that if it tries to live as a lion, it will not be for very long, and that if it goes to another herd it will be closed out and lose its protection. Human beings, though, have difficulties with identity, even on occasion with gender identity. Men (generically) keep changing sides, partly because they have difficulty deciding what they are *first*, i.e., e.g., Americans, Southerners, Tennesseans, or Nashvillians (or, e.g. again, doctors, surgeons, plastic surgeons, otolaryngologists—you know).

Now under some, perhaps even most, circumstances, this poses no problem. A zebra could decide it was a lion, and it would not get into any trouble until it tried to act like one, or to defend its turf like one. Ah, *turf*! A new dimension. Another dimension is *function*. A transvestite can function as a woman up to a certain point; after that, he (she?) begins to have difficulties.

In the final analysis, it becomes a question as to what one wishes most to protect. Animals in the wild (and I include man here) know little of individual freedom. They know that for the individual to survive, the pack must remain strong. They make sacrifices to that end.

I have in front of me two documents; one of them is published along with this editorial. It is an address given at the opening session of the AMA House of Delegates last December by its President, Dr. William Rial. In it he calls for unity of the profession, ". . . not only among members of our federation, but among all physicians and all specialties. . . ." He comments further that this is now more important than ever before "to our profession as a profession, and . . . to the patients we serve." I will come

back to that address in a minute.

The other document before me is a news release from the American Academy of Facial Plastic and Reconstructive Surgery, announcing that they have brought a $10 million lawsuit for damages against two plastic surgeons and the Georgia Society of Plastic Surgeons for what they consider a scurrilous derogation in print of the qualifications of members of the Academy. I have no intention of entering into the merits of the case, or lack of them. It is clearly a matter of two groups giving each other head over the head, so to speak. There is not enough, they think, to go around. It is a turf war, in short.

It is not as though these two groups are by themselves in this sort of maneuvering, as there are numerous turf wars in our profession, and as times get worse, there are sure to be more. The "bottom line," to use a term I don't much like, is hospital staff privileges. That is, I suppose, one way to ensure fiscal self-preservation, but it is just a short-term solution. With so many people out to get us ("us" here refers to doctors generally), it seems to me the only logical long-term solution is that we work together as hard as we can, since I see the profession as we know it in a last ditch stand. I see the AMA as the only banner under which a unified Medicine can fight. It seems to me we are in something of the same situation as the Afghans, who instead of being an army, are fighting as a group of fractious, independent units. Though they are doing one helluva job at discouraging the Soviet Army, they are badly hampered by frequently working at cross purposes. Unlike the Afghans, we fractious, independent operators are not really doing all that well.

The AMA is working hard for all of us, members and otherwise, and accomplishing a lot; in his address, Bill Rial enumerates much of it. In it he also cautions the House against precipitate action that could hamper our larger effort. Though man has been given the power to reason, too frequently the proximate ends are so vivid and seductive that they obscure the more subdued distant but frequently (if not even usually) more desirable ones. The House resisted the temptation to act injudiciously. It would be to our advantage, and possibly even be Medicine's salvation, if we could all do the same.

The title of this piece is borrowed from a fine World War II film about the British Navy, in which there were many fine ships, each with a high *esprit de corps*. Yet it was *in* the Navy, not *on* a ship, they served; they served there in cooperation with the Army and the RAF. It is sad, not to mention destructive of our welfare, that we cannot see Medicine in such a light, where, quoting Bill Rial, who was quoting John Winthrop, first governor of Massachusetts, ". . . knit together as one individual, we . . . delight in each other, make each other's condition our own, rejoice together, mourn together, and labor and suffer together."

J.B.T.

Cassandra Revisited

Predicting the future has always been one of man's favorite indoor sports, and keeping ahead of the populace has taxed the ingenuity of soothsayers in every age. To further their divinations they have employed such devices as tea leaves, sheep livers, forked sticks, crystal balls, and the megaliths of Stonehenge. Some diviners, such as Nostradamus, H. G. Wells, and George Orwell, have just done it straight out of their heads, without adornment. Wells apparently set about imagining all the things man might wish to do in the realm of exploration and had his characters do them, using advanced versions of generally available technology, with just a bit of fantasy thrown in. Other science fiction writers have used a variable balance of technology and fantasy. Orwell simply followed the then current political practices and theory to their logical conclusion. All of those writers were blessed with active imaginations, but none of them in his wildest dreams reckoned on the computer. The truth of computer technology continues to outdo fiction. Hal, the maverick computer in *2001: A Space Odyssey*, was a huge bank of electronic gear. Today you could put Hal on a couple of silicone chips and carry him around in your pocket, and he could still remember a lot more than he could then.

An item appeared in the *Wall Street Journal* the other day to the effect that our universities are losing ground in computer education. Burgeoning classes have resulted in too few teachers and inadequate equipment, so that students often must spend hours standing in line for accomplishing tasks that require only a few minutes, and individual attention from instructors is at a minimum.

Students see computer science as the wave of

the future, and with good reason. The computer has allowed us to approach if not actually accomplish almost everything H. G. Wells saw in his dreams. Space exploration is limited now mostly by man's inability to move faster than light, and I suspect the computers, along with their mathematical masters, are working on that. Science fiction writers now have to turn their imagination loose more on what is out there than on how to get there.

Howevermuch computer technology has affected space technology, it must take second place to its political implications. In that context I shall only mention the capability the computer has given us to destroy civilization in the twinkling of an eye. I have in mind here more its role should we continue to survive. Orwell pictured a society in 1984 (next year, that is) based on continuous surveillance by Big Brother. That surveillance was visual. It is not necessary.

According to the Labor Department we are now an informational rather than an industrial society. Only 13% of our people are presently engaged in manufacturing, whereas 60% are involved in the gathering and processing of information. Information on what and to what end?

Another name given this sort of society is "the Village Culture." Guess why. You know villages—everybody knows everybody else's business. The town busybody is now the computer. What was feared from the first has come to pass. *Everything* is stored in a computer. What is worse, there is no such thing as computer security. Once the information is in the computer, it is free for the taking by any knowledgeable programmer. If he can put it in, he can get it out. As storage capabilities increase, your manner of living becomes increasingly transparent. Unless you pay cash for everything, it is possible to build a pretty accurate profile of your activities. *Of course,* that information is confidential, *but*—.

Not only is it possible to build an accurate profile of your manner of living, but also of your manner of medical practice—at least insofar as it involves care of patients funded by the public (and probably by any other third party carrier, as well). Stored "safely" in the computer, for instance, is every prescription you ever wrote for any such patient. While it would take almost infinite manpower to compile patterns of prescribing from that information, the computer can do it in an instant. Frightening? Maybe. The computer has neither reasoning power nor conscience. It is amoral. It can be made to work either for you or on you or both. The computer's ability to do it to you is the price you pay for having the computer do it for you. Our society is now committed to the use of computers for just about everything—even its recreation.

Although the possibility of nefarious uses for the computer has been perfectly clear ever since computers were first used for storing personal and professional data, there have been profuse assurances (often from ourselves, in our cupidity) that all information in the computers would remain confidential. Ultimately, what society asks for (which is not necessarily the same as what it wants) society will get. If an individual can be identified for reimbursement, he can be identified for anything else as well. That is just the way it is. Since it is that way, and all that information is unlikely to be erased, instead of bemoaning the situation or our lot (you may put any construction you wish on "our" and "we" in this paragraph) we need to bend our own fertile imaginations to putting all those data to constructive use.

J.B.T.

Seasonal Reflections

Although a bit unseasonal, it is not inappropriate to print a Christmas piece at Easter-time, or any other time for that matter. It is Christmas Eve. Those considering a white Christmas can only dream of it this year, since most of the world is experiencing unseasonably spring-like weather. Bethlehem is shown on television under bright, balmy skies. It is not quite so bustling as usual, as tourism is down 70% this Christmas due to conditions following the bombings and massacre in Beirut. Perhaps that gives the relatively few who are visiting the holy places more of a feeling of the stillness we sing about; on the other hand, the concentration of souvenir peddlers per tourist is vastly increased, so perhaps not. In any case, as Mark Twain observed after his visit there, all of that will soon fade from memory, and only the vision of the holy remain.

What I remember best of my own brief visit to Bethlehem is not Bethlehem at all, but an unscheduled sunset stop at the Garden of Gethsemane, just outside Jerusalem's walls, on the return trip from Bethlehem. Though the garden was closed for the day, our guide persuaded the fath-

ers to open it for us. The peace of the garden gave us the opportunity to pause for a moment and reflect on the events of a crowded day that had begun with a dawn departure from a ship in Haifa harbor, proceeded along Mount Carmel to Jerusalem for a day there, and ended finally with a late afternoon visit to Bethlehem before our return to the ship for a late supper. Our guide commented that he had given us a week's tour in one day, so the peace of that half hour in the garden was magnified a hundred-fold. I had never really realized how close physically Bethlehem is to Gethsemane—only a few miles—and because a lifetime filled with momentous events separated the two in the life of Jesus, their spiritual proximity is also all too infrequently appreciated.

The holy places are cluttered with detritus, inanimate and animate. The streets of Bethlehem and Jerusalem are filled with tourists and those who prey upon them. To preserve the garden, men have walled it off. To preserve the stable—actually a cave—they have covered it with a church. How different from the towns that Jesus knew, and yet how similar. The spirit of the money changers in the temple lingers with us, not only in those holy places, but at this season particularly, in our own streets and stores as well.

Still worse for most of us is the condition of our own individual holy place. That little corner of the mind relegated to the Spirit is buried deep beneath the cathedrals we have built to the things of this world, and encrusted with a patina of the years, forged, like Jacob Marley's chains, from our cares and false loves, until the way to that garden is found with difficulty and well nigh impassable. Each year at Christmas and Easter we make a pilgrimage, often grudgingly, to that shrine, struggling past all that preys on the spiritual tourist, finally arriving too spent for further activity.

Once inside the garden, though, we find our guide leading us along peaceful pathways beside still waters and green pastures, restoring our soul. With daily use, the passageway could be cleared of the rubble of the years, and finding the holy place thus become both easy and natural. The garden paths, though, need careful tending to prevent an impenetrable overgrowth of the brambles that seem to thrive there.

Though it is only a short distance from Bethlehem to Gethsemane, traffic is heavy today. The bus creeps along, and its passengers, near exhaustion from trudging through narrow streets with uneven pavement, and sated with cathedrals and shrines, half rebel at the suggestion of another stop. The guide, though, knows that a respite in the garden will refresh us for the long journey ahead.

It was worth the stop. It still is.

J.B.T.



Pain Relief—1983

To The Editor:

Fear of the unknown only slightly outranks the fear of pain in the heirachy of human suffering. Much of a physician's work centers around the relief and prevention of pain; and, unlike the unknown, the nature of pain is well known to patients and justifiably feared.

Though pain is a needed signal of physiology-gone-wrong, most often relief and prevention are appropriate goals of medical care and should be promptly and expertly provided. Further, patients, particularly those with chronic or intractable pain, need to be enlisted in their own program of prevention and treatment so as to place their pain under their own control as much as possible.

Physicians and others in the health services need to be aware of the many aspects of pain and pain control that are becoming better understood.

Alive-Hospice of Nashville, Inc. in cooperation with Vanderbilt University Medical School has offered an all day workshop on Friday, March 18, 1983. The guest speakers will be Dr. John Scott, Director of Palliative Care, St. Michael's Hospital, Toronto, Canada, and Alexandra Wright, R.N., North Carolina Baptist Hospital, Winston-Salem, N.C., a specialist in nursing assessment of pain.

The objective of the workshop will be to describe assessment of pain from both a medical and psychological perspective. The components of pain will be described, and information will be provided as to how clinicians can quickly and effectively identify causes and treatment of pain.

We hope this will be the beginning of a series of learning experiences in pain control for physicians and other regional health providers, and of the dissemination to the public of current knowledge on pain as well.

Iris Kozil, Executive Director
Alive-Hospice of Nashville

Lewis Lefkowitz. Jr., M.D.
Professor of Preventive Medicine
Vanderbilt University School of Medicine
CCC-5311 Medical Center North
Nashville, TN 37232

in memoriam

Arlie Harris Chamberlin, Jr., age 74. Died October 10, 1982. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

John L. Cooley, age 93. Died August 4, 1982. Graduate of Eclectic Medical University, Kansas City. Member of Chattanooga-Hamilton County Medical Society.

Edward M. Henderson, age 76. Died December 21, 1982. Graduate of University of Tennessee College of Medicine. Member of Hawkins County Medical Society.

Daugh W. Smith, age 83. Died January 20, 1983. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Melville D. Smith, age 82. Died October 2, 1982. Graduate of University of Virginia School of Medicine. Member of Washington-Carter-Unicoi County Medical Association.

Willard H. Steele, Jr., age 68. Died January 7, 1983. Graduate of University of Pennsylvania School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY
Joe Lee DeVane, M.D., Cleveland
Daniel M. King, M.D., Cleveland

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY
Michael W. Bible, M.D., Chattanooga
William E. Feist, M.D., Chattanooga
Jeffery W. Gefter, M.D., Chattanooga
Monica A. L. Gefter, M.D., Hixson
James M. Kamplain, M.D., Chattanooga
Charles A. Kirby, M.D., Chattanooga
Elizabeth Lodge-Sherwood, M.D., Chattanooga
Robert L. Martin, Jr., M.D., Chattanooga
Elizabeth B. Mercado, M.D., Chattanooga
David M. Ostrowski, M.D., Chattanooga
Michael D. Phillips, M.D., Chattanooga

CUMBERLAND COUNTY MEDICAL SOCIETY
Arturo L. Quito, M.D., Pikeville

DeKALB COUNTY MEDICAL SOCIETY
Joseph S. Bobrow, M.D., Smithville

FRANKLIN COUNTY MEDICAL SOCIETY
Robert R. Cleveland, M.D., Winchester

KNOXVILLE ACADEMY OF MEDICINE
Walter H. Brott, M.D., Knoxville
W. David England, M.D., Knoxville
Jeffery S. Hecht, M.D., Knoxville
Stephen L. Meisenheimer, M.D., Knoxville
Steven R. Moffett, M.D., Knoxville
Kristy L. Newton, M.D., Knoxville
H. Steven Silver, M.D., Knoxville
Kenneth M. Taylor, M.D., Knoxville

MONROE COUNTY MEDICAL SOCIETY
Ramon Villaneuva, M.D., Sweetwater

NASHVILLE ACADEMY OF MEDICINE
John Kirby Pate, M.D., Nashville

NORTHWEST TENNESSEE ACADEMY OF MEDICINE
James W. Bonds, M.D., Dyersburg
Irene Marsidi, M.D., Union City
Thomas J. O'Donnell, M.D., Dyersburg

PUTNAM COUNTY MEDICAL SOCIETY
Tony B. Hudson, M.D., Cookeville
Francisca V. Sizemore, M.D., Cookeville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY
Rodney M. McMillin, M.D., Harriman
James E. Phillips, M.D., Oak Ridge

ROBERTSON COUNTY MEDICAL SOCIETY
James Travis Gray, M.D., Springfield

RUTHERFORD COUNTY MEDICAL SOCIETY
Timothy J. Beasley, M.D., Murfreesboro

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY
Thomas C. Greene, M.D., Bristol

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION
Lynn E. Pittinger, M.D., Johnson City

WILLIAMSON COUNTY MEDICAL SOCIETY
James S. Kennedy, M.D., Franklin

personal news

James E. Chapman, M.D., Oak Ridge, has been elected to Fellowship on the Scientific Council of the American College of Angiology.

Irvin D. Fleming, M.D., Memphis, has been elected president of the Tennessee Division of the American Cancer Society.

Thomas F. Frist, Sr., M.D., Nashville, has been selected as a recipient of one of the 1983 Human Relations Awards of the National Conference of Christians and Jews.

Bruce Galbraith, M.D., has been installed as president of the medical staff at Harton Hospital in Tullahoma. Other officers elected include *William M. Milam, M.D.*, vice president; and *Robert W. Ridley, M.D.*, secretary-treasurer.

Harry L. Page, Jr., M.D., Nashville, has been installed as president of the St. Thomas Hospital medical staff; *William S. Stoney, Jr., M.D.*, Nashville, has been named president-elect and will succeed Dr. Page in 1985.

Lovett P. Reddick, M.D., Kingsport, has been certified as a Diplomate of the American Board of Plastic and Reconstructive Surgeons.

TMA Members Receive AMA Physician's Recognition Award

Fifteen TMA members qualified for the AMA Physician's Recognition Award during December 1982.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Harold T. Akin, M.D., Murfreesboro
John W. Chambers, M.D., Cleveland
Morris D. Cohen, M.D., Memphis
Thomas A. Currey, M.D., Memphis
Robert C. Donaldson, M.D., Kingsport
Lawrence G. Gardner, Jr., M.D., Memphis
William T. Hayes, M.D., Memphis
Paul W. Hoffmann, M.D., Maryville
Ethem Y. Kuzucu, M.D., Chattanooga
Lilia D. Mauricio, M.D., Lawrenceburg
Ralph McGraw, Jr., M.D., Chattanooga
Subir K. Nag, M.D., Memphis
Orland S. Olsen, M.D., Johnson City
James N. Proffitt, M.D., Maryville
George K. Scholl, M.D., Johnson City

national news

From the AMA's Office in Washington, D.C.

Heckler Named New SDHHS

Richard S. Schweiker, Secretary of the Department of Health and Human Services (HHS) for the first two years of the Reagan administration, resigned earlier in the month. It was reported that Schweiker would become president of the American Council of Life Insurance, a lobbying organization for the insurance industry. Schweiker's unexpected departure was preceded by the earlier resignation of HHS's number two man, Undersecretary David B. Swoap who returned to California to head that state's welfare agency.

President Reagan has nominated former Republican Representative Margaret Heckler of Massachusetts to succeed Schweiker. Heckler, considered a moderate, was defeated in last November's election. She is an attorney, an advocate of women's rights and is pro-consumer: however, she is strongly opposed to abortion. Heckler is the second woman to be appointed to the Reagan cabinet. Elizabeth Dole, wife of Senator Robert Dole (R-KS) was recently named to head the Department of Transportation. Heckler's appointment must be confirmed by the U.S. Senate.

An hour after Heckler was nominated to replace Schweiker, presidential adviser Ed Meese told a luncheon that Social Security Commissioner John Svahn would become the new HHS Undersecretary, replacing David B. Swoap.

The shakeup caught both administration and HHS officials by surprise, and brought to the forefront of the government's largest agency a 50-year-old lawyer who on Capitol Hill is considered to be a strong feminist with one major exception—she opposes abortion.

Despite her reputation as a liberal Republican, the former Rep. Heckler was considered a "loyal soldier" of the Reagan administration on almost every issue except those involving women's rights. She split with the major activist women's groups only on one important point—abortion. As a Roman Catholic and the representative of a district with a large Catholic population, she was a strong anti-abortionist. She made a determined effort to avoid an anti-Equal Rights Amendment plank in the 1980 Republican platform.

Calling Reagan "the finest President I have known," Heckler said at her nomination ceremony, "It is with a sense of faith in your vision and goals for America that I accept. . . ." She lost her House seat last fall to Democrat Barney Frank.

Schweiker's main role as HHS Secretary was to act as a buffer between the Reagan administration and the army of critics in Congress seeking to prevent administration cutbacks in social programs. He used his eight years' experience as a representative and 12 as a senator to defuse some of the hostility toward Reagan's programs.

Schweiker's two years in the Reagan cabinet were stormy, with fights over welfare, medical programs, health insurance, and Social Security. He had a running feud with Budget Director David Stockman and only last month had to appeal directly to the President to win back proposed cutbacks of $500 million that would have gutted the U.S. Public Health Service. Schweiker also had been excluded from White House task forces to reform the Social Security system and hold down the cost of medical care.

Administration Pushes Competition Plan

The administration has entered its latest ploy towards its long-awaited proposal to inject more com-

petition into the health care economy.

Speaking before a recent national health maintenance organization (HMO) policy conference in Washington, White House health consultant David A. Winston said he had reason to believe a competition policy would be introduced "very soon." The annual meeting was sponsored by the Group Health Association of America and the American Association of Foundations for Medical Care.

Winston, an unpaid special consultant with responsibility for coordinating the development of an administration strategy for health care reform, predicted that the proposal would include a so-called "tax cap," limiting the dollar amount of health care benefits that are non-taxable to the employee, and mandatory cost sharing for certain Medicare patients. Winston, currently a first vice president in the Washington Office of Blyth Eastman Paine Webber Health Care Funding, formerly was minority health staff director for Sen. Richard Schweiker when the outgoing HHS Secretary was a ranking minority member of a Senate Labor and Human Resources health subcommittee.

Winston was less optimistic about the proposal's chances for enactment, saying he could not predict whether such a proposal would pass. He was convinced, however, that top-level administration officials were committed to making the health care system more responsive to price.

Discussing why the adminstration's plans for a so-called "pro-competition" proposal had lagged for two years, Winston said the administration assessment was that "almost anything would irritate almost everyone."

For a period, Winston said, "we thought seriously that the smartest political thing" was to do nothing. More recently, data on current and projected health care expenditures made the administration take notice of a pressing need for change, he added.

Winston said the $56.4 billion spent on Medicare this year would grow, by conservative estimate to $100 billion by 1987, if no reforms were enacted. Six weeks ago, health care experts, briefing the President and other top administration officials, estimated that total health care expenditures in the nation would grow to $798 billion by 1990 if the current system was allowed to stand.

In its desire to stem this growth, the administration hopes to protect itself fiscally and to "address the reasons" for the growth to correct the "dislocations in the private sector," referring to the cost shifting to private patients when the government limits its reimbursement policies.

Winston said that after several weeks of intensive meetings with providers, payers and employers, there appeared to be a "schism, a rather natural division" of opinion. The purchasers, including insurers, employers, and unions, "would like to prevent any proposal from enactment" and would prefer that the government turn to revenue control over providers.

Acknowledging that the administration was supporting an unpopular proposal, Winston said everyone would suffer "a certain amount of pain" and undergo constraints to accomplish the long-term goal of helping consumers become more prudent buyers of health care.

The prudent buyer concept is a familiar one to health economist Alain Enthoven, Ph.D., a professor in the Graduate School of Business at Stanford University. Dr. Enthoven, who has for five years been an advocate of competitive approaches to health system reform, disagrees with the proposal to enact mandatory co-payments, noting that recent studies indicate that the great majority of hospitalized patients exceed their co-insurance limit, diluting the provision's intended effect of stemming demand.

Dr. Enthoven argued, however, for the need to limit an employer's contribution to health insurance premiums that are tax-free to employees. Appealing to his audience, Dr. Enthoven said that a cap of $150 per month on an employer's contributions "would be good for HMOs and other organized systems" of care, since employees would be encouraged to select a plan that would not add taxable benefits to their salaries.

The current system of allowing employers to give workers unlimited untaxed health care benefits is "subsidizing the rich," Dr. Enthoven said. A family health insurance plan would be worth, on the average, $83 a year to a household with a $10,000 to $15,000 income and $622 a year to a household earning $50,000 to $100,000.

The difference, Dr. Enthoven said, is between tax brackets of households and what their tax liability would be if health insurance were taxed.

"It's wrong to cut Medicare and Medicaid beneficiaries, who can least stand to lose, while leaving tax exclusions" for the well-to-do, he said.

Legislating mandatory tax liability for health insurance premiums that are over $150 per family monthly would produce a $25.7-billion revenue gain this year, Dr. Enthoven said, helping the federal government move toward a balanced budget. Arguing the proposal's political feasibility, he pointed out that employers now had similar constraints on the amount they are allowed to contribute tax-free to an employee's life insurance.

APA Defines Psychiatrist's Legal Role

In a carefully worded position paper on the insanity defense, the American Psychiatric Association (APA) has criticized a legal system that calls upon psychiatrists to testify beyond their medical expertise into matters of law and morality.

The statement, the first on the topic to be developed and adopted by the APA, is expected to spark heated debate among forensic psychiatrists, trial attorneys, and civil libertarians. Although the APA says in its foreword to the 23-page text that the statement "reflects the current thought and opinion of the vast majority of psychiatrists who are informed and concerned about the insanity defense issue," the report includes recommendations that are likely to create controversy within the profession.

Certain to irk psychiatrists who frequently testify as expert witnesses are APA's guidelines on what Loren

Roth, M.D., calls the "useful and scientifically valid role" for psychiatrists in the implementation of the insanity defense. Dr. Roth, director of the law and psychiatry program at Western Psychiatric Institute in Pittsburgh and chairman of the APA work group that wrote the statement, called this the most important recommendation in the new APA policy.

In a telephone interview with *American Medical News,* Dr. Roth said psychiatrists had been called upon to answer "ultimate issue" questions, such as whether a person is legally insane or had the capacity to appreciate the criminality of his conduct.

When such questions are posed, psychiatrists should decline to answer, he said, limiting their expert testimony to the "defendant's psychiatric diagnosis, mental state, and motivation at the time of the alleged act so as to permit the jury or judge to reach the ultimate conclusion about which they and only they are expert." When psychiatrists try to determine whether a defendant is legally insane, they are going "beyond their expertise, passing from the realm of psychiatry into the realm of morality and law," Dr. Roth said.

Although Dr. Roth said he would refuse to answer questions of legal insanity on the witness stand, such a response probably would cause him not to be called as an expert witness in most cases. The practice in most states, Dr. Roth said, is to ask psychiatrists such questions.

The statement's second most important recommendation, Dr. Roth said, suggests guidelines for legislation dealing with the disposition of violent people who are found not guilty by reason of insanity. According to the statement, this is the most significant area for reform in the current administration of the insanity defense.

The paper comes down hard on states in which hospitalized insanity acquittees who have committed previous violent offenses can be released if future dangerousness cannot be demonstrated. The statement noted that while some insanity acquittees will "recover" after psychiatric hospitalization, "there can be no public guarantee."

After initial hospitalization, the statement continues, "a long period of conditional release" with "careful supervision and outpatient treatment" will be necessary to protect the public and to complete the appropriate treatment programs.

"Unfortunately," the statement notes, "many jurisdictions have neither the trained personnel nor appropriate outpatient facilities and resources to provide for such close management of previously violent persons who are conditionally released."

Recognizing that because it will not be possible to release some acquittees because of the risk to society, the lack of resources, or other legal considerations, the APA paper points out that "because psychiatry has no more to offer the acquittee, continued confinement cannot be justified on therapeutic or psychiatric grounds."

With such lack of justification, "the psychiatric facility becomes a prison," the report notes. "This hypocrisy must be confronted and remedied." The report suggests as an appropriate alternative transfer of responsibility for a confinement of such acquittees to a "non-treatment facility that can provide the necessary security."

Pointing out that this recommendation may be the most controversial in the report, particularly among civil libertarians who think the recommendation is unduly harsh, Dr. Roth said: "As psychiatrists, we don't want to act as agents of social control and provide imprisonment. Yet we feel this is a dilemma that should be brought to the attention of the public."

On the question most hotly debated by the general public—should the insanity defense, which was used successfully in the trial of John Hinckley, who shot President Reagan in 1981, be abolished—the APA gave a loud and clear "no!"

Retention of the defense, the statement said, "is essential to the moral integrity of the criminal law." APA also came out strongly against the approach, now being used in nine states, of adopting a "guilty but mentally ill" verdict.

Instead, the APA recommended a narrower definition of the type of testimony given by a psychiatrist regarding a defendant's understanding or appreciation of his act. Although the report does not call for outright elimination of psychiatric testimony about a defendant's so-called "volition," it notes that "many psychiatrists . . . believe that psychiatric information relevant to determining whether a defendant understood the nature of his act, and whether he appreciated its wrongfulness, is more reliable and has a stronger scientific basis than, for example, does psychiatric information relevant to whether a defendant was able to control his behavior.

"The line between an irresistible impulse and an impulse not resisted is probably no sharper than that between twilight and dusk." The report also noted that "many psychiatrists therefore believe that psychiatric testimony . . . about volition is more likely to produce confusion for jurors than is psychiatric testimony relevant to a defendant's appreciation or understanding."

The APA also endorsed a standard, recently proposed by R. J. Bonnie, an attorney at the Institute of Law, Psychiatry, and Public Policy at the University of Virginia, Charlottesville, that would permit "relevant psychiatric testimony to be brought to bear on the great majority of cases" in which criminal responsibility is at issue.

The standard says that "a person charged with a criminal offense should be found not guilty by reason of insanity if it is shown that as a result of mental disease or mental retardation he was unable to appreciate the wrongfulness of his conduct at the time of the offense.

"As used in this standard, the terms mental disease or mental retardation include only those severely abnormal mental conditions that grossly and demonstrably impair a person's perception or understanding of reality and that are not attributable primarily to the voluntary ingestion of alcohol or other psychoactive substances."

Dr. Roth described this standard as "halfway between" the two tests—commonly known as M'Naughten (used in about half the states) and American Law Institute or ALI (used in the other half and in federal courts).

The American Psychiatric Association suggested the following guidelines for legislation dealing with the

disposition of violent persons acquitted on insanity grounds:

- Special legislation should be designed for people charged with violent offenses who have been found not guilty by reason of insanity.
- Confinement and release decisions should be made by a board, similar to a parole board, that includes psychiatrists as well as other professions representing the criminal justice system.
- Release should be conditional upon having a treatment supervision plan in place with the necessary resources available to implement it.
- The board with jurisdiction over released insanity acquittees should have clear authority to reconfine.
- When psychiatric treatment within a hospital setting has obtained the maximal treatment benefit possible but the board thinks that for other reasons confinement still is necessary, the insanity acquittee should be transferred to the most appropriate nonhospital facility.

announcements

CALENDAR OF MEETINGS

NATIONAL

April 9-16	American Academy of Otolaryngology—Head and Neck Surgery—Fairmont Hotel, New Orleans.
April 14-20	American Medical Society of Alcoholism—Hyatt Regency, Houston
April 15-17	Society for Pediatric Radiology—Hyatt Regency, Atlanta
April 16-17	Southeastern Dermatological Association—New Orleans
April 16-20	American Fracture Association—Holiday Surfside Inn, Clearwater Beach, Fla.
April 17-21	American Urological Association—Las Vegas Hilton Hotel
April 18-29	24th Postgraduate Institute for Pathologists in Clinical Cytopathology—Johns Hopkins University and Hospital, Baltimore
April 21-23	American Society of Law and Medicine—Hilton, Washington, D.C.
April 22-24	Southern Medical Association Medical Staff Leadership Seminar—Marriott Hotel, Hilton Head, S.C.
April 24-27	Society of Cardiovascular Anesthesiologists—Sheraton, San Diego
April 24-28	American Association of Neurological Surgeons—Sheraton, Washington, D.C.
April 24-29	American Occupational Medical Association—Hilton, Washington, D.C.
April 25-27	Southeastern Surgical Congress—Marriott Downtown, Atlanta
April 27-May 1	American Psychoanalytic Association—Sheraton, Philadelphia
April 29-May 1	American College of Nuclear Medicine—Amfac Hotel, Dallas
April 29-May 1	American Society for Adolescent Psychiatry—Barbizon Plaza, New York
April 29-May 2	American Society for Clinical Investigation—Sheraton, Washington, D.C.
April 29-May 2	Association of American Physicians—Sheraton, Washington, D.C.
May 2-6	American Psychiatric Association—New York
May 2-7	American Pediatric Surgical Association—Marriott Hotel, Hilton Head Island, S.C.
May 3-6	American Pediatric Society—Hilton Sheraton, Washington, D.C.
May 3-6	Society for Pediatric Research—Sheraton, Washington, D.C.
May 4-7	Virginia Society of Ophthalmology and Otolaryngology, Inc.—Boar's Head Inn, Charlottesville, Va.
May 5-6	American Trauma Society—Chicago
May 6-8	Southern Medical Association Regional Postgraduate Conference—Marriott Resort Griffin Gate, Lexington, Ky.
May 7-12	American College of Legal Medicine—Kona Surf Hotel, Kona, Hawaii
May 8-12	American College of Obstetricians and Gynecologists—Hilton Hotel, Atlanta
May 8-11	American Lung Association—Radisson-Muehlebach, Kansas City, Mo.
May 8-11	American Thoracic Society—Radisson-Muehlebach, Kansas City, Mo.
May 8-11	Neurosurgical Society of America—Key Biscayne Hotel, Key Biscayne, Fla.
May 10-14	Christian Medical Society—Boston
May 12-13	American Geriatrics Society—Roosevelt Hotel, New York
May 12-14	American Surgical Association—Boca Raton Hotel & Club, Boca Raton, Fla.
May 12-15	American College of Emergency Physicians—Hyatt Regency Hotel, Chicago
May 13-14	Symposium—Update of Lupus Erythematosus: Diagnosis and Treatment—West Paces Ferry Hospital, Atlanta.
May 19-21	American Cancer Society, Breast Cancer Conference—Sheraton Boston Hotel, Boston
May 21	Muscular Dystrophy Association—Sonesta Beach, Key Biscayne
May 21-27	American Society for Gastrointestinal Endoscopy—Hilton Hotel, Washington, D.C.
May 23-26	Aerospace Medical Association—Shamrock Hilton Hotel, Houston
May 23-26	American College of Sports Medicine—Town & Country Hotel, San Diego
May 24-25	Society for Surgery of the Alimentary Tract—Sheraton Hotel, Washington, D.C.
May 26-28	American Association of Genitourinary Surgeons—Greenbriar, White Sulphur Springs, W. Va.
May 26-29	American Society of Head and Neck Radiology—Marriott Hotel, Boston

STATE

April 13-16	Tennessee Medical Association 148th Annual Meeting—Opryland Hotel, Nashville

Highlights of the TMA Board of Trustees Meeting
January 15-16, 1983

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular first quarter meeting in Nashville on January 15-16, 1983.

THE BOARD:

Resolution Regarding Election of 6th AMA Delegate and Alternate

Approved a draft of a resolution regarding a method under which the sixth AMA delegate and alternate delegate would be elected by TMA, two from each grand division.

Long Term Health Care Committee Proposal

Endorsed organization of the Independent Tennessee Foundation for Geriatric Education on the recommendation of the TMA Long Term Health Care Committee.

IMPACT

Heard details of an intensive three-month membership campaign planned by IMPACT.

Proposed Hospital Legislation

Referred to the Legislative Committee proposed legislation, supported by the Tennessee Hospital Association, involving payment for hospital care for out-of-county residents treated in local hospitals for an emergency situation or for a condition not treatable in the patient's local hospital. The legislation would require the resident's county to reimburse the receiving hospital on the Medicaid level for a limited number of days.

Nominating Committee

Appointed these members of the Nominating Committee for the House of Delegates: East Tennessee—George A. Zirkle, Jr., M.D., Knoxville, Jackson Butterworth, Jr., M.D., Bristol, David H. Turner, M.D., Chattanooga; Middle Tennessee—Thurman L. Pedigo, M.D., McMinnville, Lloyd T. Brown, M.D., Gallatin, John K. Wright, M.D., Nashville; West Tennessee—J. Howard Ragsdale, M.D., Union City, Oscar M. McCallum, M.D., Henderson, Rex A. Amonette, M.D., Memphis.

Appointment of Standing and Special Committees for 1983

Considered and nominated physicians to serve on each of the standing and special committees of TMA. In considering the appointments, the Board took into account the geographical locations of the state and established the terms of the Committee members in keeping with the Constitution and By-Law requirements. All appointments will become effective at the conclusion of the TMA Annual Meeting in April.

Distinguished Service Award

Voted to award the 1983 TMA Distinguished Service Award to Eugene W. Fowinkle, M.D., Nashville; George W. Shannon, M.D., Jackson; and A. Roy Tyrer, Jr., M.D., Memphis.

Community Service Award

Voted to bestow the TMA Community Service Award on Mrs. Nelma Justin, McMinnville; Mrs. Lamar Alexander, Nashville; and Mr. Nelson C. Andrews, Nashville.

TMA-Student Education Fund Board of Directors

Reappointed Robert H. Haralson, Jr., M.D., for a three-year term on the TMA-Student Education Fund Board.

Tennessee Medical Foundation

Appointed Luthur A. Beazley, Jr., M.D., Nashville, to the Board of the Tennessee Medical Foundation.

Status of Commissioner of Public Health

Reaffirmed TMA policy of opposition to any change in the law regarding the qualifications of the Tennessee Commissioner of Public Health.

Resolution Review

Reviewed resolutions passed by the TMA House of Delegates seven years previously which expire in April unless reintroduced and reaffirmed by the House.

TMA Program in Prescribing Improvement

Heard a report from William Miller, M.D., Knoxville, on the completion of the prescribing practice improvement program. The Board agreed that the Ad Hoc Committee continue the educational aspects of the program with the Department of Public Health. The Committee will present its final report at the October Board meeting.

Resolution Regarding Student Education Fund

Agreed to submit a resolution to the TMA House of Delegates that would provide additional funds for the TMA-Student Education Fund through an additional dues increase of $15 earmarked for the SEF.

Recommendation from Travel Committee

Approved the Travel Committee's recommendation of two 1983 trips—one, a 15-day trip to Europe in June, the Oriental Express Adventure, and the other an 11-day trip to the western United States, the Canyonlands of America Adventure.

Medical Malpractice Review Board

James Hays, M.D., Nashville, and Mr. Fosbinder spoke to the Board regarding a study conducted by the Department of Public Health on the effectiveness of the Medical Malpractice Review Board process and advised that legislation to continue the review board must be introduced this legislative session or the board will terminate on June 30.

Voted to support legislation to continue the Medical Malpractice Review Board. The Board supported numbers 1, 2, 3, 7, and 8 of the following recommendations and rejected numbers 4 and 5 and amended number 6 to require use of an independent hearing officer in review board hearings.

(1) The procedure by which malpractice suits are automatically and expeditiously referred to the review board by courts should be clarified and standardized;
(2) The provisions allowing waiver of the referral of malpractice suits to the review board should be clarified;
(3) The deliberations of review board panels should be exempted from the requirements of the Sunshine Law;
(4) The procedure by which the executive director and board members are appointed should be simplified;
(5) The requirements for panel compositions and voting privileges should be amended in instances where there are non-physician defendants and multiple physician defendants;
(6) The requirement of independent hearing officers in review board hearings should be subject to the discretion of the executive director;
(7) The provisions specifying the form, admissibility, and procedure for admission of review board recommendations should be amended and clarified; and
(8) The costs incurred by the State in conducting a review board hearing at which one party fails to appear or provide good cause for their non-appearance should be taxed against the non-appearing party by the court and paid to the review board.

SVMIC

Heard a report that a $1.5-million dividend has been declared by SVMIC, bringing to a total $10 million returned to the policyholders.

Appointment of Legal Counsel and Accountant

Reappointed Mr. Charles L. Cornelius, Jr., as TMA's legal counsel for 1983 and Mr. Ezra Jones as TMA's accountant for 1983.

Financial Statement

Approved the Financial Statement and Operating Report of the Association outlining the receipts and expenditures for 1982 and the TMA revised budget for 1983.

Recommendation from the Committee on Group Insurance

Approved a recommendation from the TMA Committee on Group Insurance that an optional feature for the TMA Group Life and Accidental Death and Dismemberment Plan be added. This optional feature allows a participating member to make additional contributions. Upon retirement, the monies in the fund are utilized to provide the member and/or his employees with paid-up life insurance coverage. This option will be available to all members covered under the TMA Group Life Plan.

TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

April 7	Annual Frank H. Luton Lecture in Psychiatry (1 hour)
April 9	Scientific Sessions, Tennessee Chapter, American Diabetes Association (7 hours)
April 22-23	Update in Gynecological Oncology and the Conrad Julian Memorial Lecture in Gynecologic Oncology (10 hours)
April 29-30	Annual Barney Brooks Lecture in Surgery and H. William Scott Society, Scientific Sessions
May 18-19	Annual Seminar in Psychiatry (10 hours)
May 26-28	Diagnostic Sonography Update: 1983 (20 hours)
June 2-4	Behavioral Neurology: Higher Cortical Functions and the Brain
June 4-5	Ophthalmology Residents Day
June 9-10	Controversies in Cardiology: 1983—Annual Scientific Sessions, Middle Tennessee Heart Association (10 hours)
July 7-9	Vanderbilt/Bowman-Gray Fifth Annual Mountain Meeting, Internal Medicine—Asheville, N.C. (12 hours)
July 19-23	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)
Sept. 19-23	Internal Medicine Review (40 hours)
Sept. 28-30	Recent Advances in Blood Banking
Oct. 13-16	International Surgical Group

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.

Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

April 8	Epilepsy
April 22-23	Clinical Hypnosis
May 11-14	Symposium on Reconstructive Surgery of the Nose and Eye Enternal (Open) Rhinoplasty Blepharoplasty Symposium
June 5-9	ECG Workshop—Pickwick State Park
June 29-July 2	Family Practice Update—Opryland Hotel, Nashville
July 31-Aug. 4	"Hands On" Practical Skills Workshop—Paris Landing State Park
Aug. 17-20	Cardiology Update—Gatlinburg
Sept. 14-15	Diabetes Mellitus: Basic and Clinical
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Nov. 29-Dec. 1	Norfleet Forum

Knoxville

April 28-30	VI Annual Family Practice Update—Gatlinburg
May 20-21	Closed Intramedullary Nailing
June 2-4	Practical Otolaryngology for the Primary Care Physician—Gatlinburg
June 16-18	Great Smoky Mountain Pediatric Seminar—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

EAST TENNESSEE BAPTIST HOSPITAL

April 13-15	1st Annual Southeast Regional Gerontology Conference—Hyatt Regency, Knoxville.

For information contact Sheila Gordon, R.N., Asst. Dir., Staff Development and Training, East Tennessee Baptist Hospital, P. O. Box 1788, Knoxville, TN 37901, Tel. (615) 632-5061.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

April 7-9	Gynecological Surgery
April 21-22	Spiritual Aspects of Suffering and Pain
May 5-6	Nutritional Support
May 19-20	Infectious Diseases for the Clinician
May 21	Nuclear Medicine
May 27-29	Anesthesia Update
Sept. 30-Oct. 1	Pulmonary Update
Oct. 3-4	Recent Advances in Cardiovascular Surgery
Oct. 27-28	Liver Disease—From Prevention to Transplantation (co-sponsored with the University of Tennessee)

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

OF SPECIAL INTEREST

AMERICAN CANCER SOCIETY

May 19-21	National Conference on Breast Cancer, 1983—Boston Sheraton Hotel, Boston. *Credit:* 16.5 hours AMA Category 1.

For information contact Nicholas G. Bottiglieri, M.D., Breast Cancer Conference, American Cancer Society, 777 Third Ave., New York, NY 10017, Tel. (212) 371-2900.

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Today's Issue; Tomorrow's Problem— Controlling the Cost of Health Care

GEORGE D. ZUIDEMA, M.D.

Few people will deny that we are living in turbulent and uncertain times. High on our list of problems is the nation's economic health. This is an appropriate concern. For although the seeds of our present problems may have been planted many years ago, nonetheless, finding a prompt and correct solution is essential to the health and well-being of this nation, and will be the determinant of the pattern of government and the way of life that we will be able to pass on to succeeding generations. The scope of the problem is intimidating, and it remains difficult to grasp even when it is narrowed down to one aspect, that of health care. I should like to address only one small part of the subject, and discuss certain socioeconomic trends and their implication for "medical care."

We must begin with a careful assessment of some of the many factors involved in those costs. The total cost for health care in the United States for 1981 came to $287 billion. This represents 9.8% of our gross national product; it is expended at the rate of more than $12,000 a minute, and involves an annual per capita cost of about $1,225. Medicare and Medicaid costs amounted to $73 billion, or 29% of the total. The breakdown of the overall expenditures shows that hospital costs totaled about $118 billion, and physician costs were $54.8 billion; the remainder was spent on nursing home care ($24.2 billion) and drugs, medical supplies, and dental care ($90 billion). Physicians are directly responsible for one-fifth of the total U.S. health care expenditures. When one considers that physicians decide who will be hospitalized and what diagnostic studies and treatment programs are indicated, we can add an additional $100 billion to our area of responsibility, which means that by conservative estimate physicians are primarily responsible for about seventy cents of every health care dollar expended in the United States. Furthermore, experience has shown that hospital costs rise at a rate in excess of the consumer price index.

There is a commonly held impression that increasing national expenditures in the health field results in improvement of health care. There is little question that this relationship holds true for nations at the lower end of the economic scale. These countries usually struggle in poverty, and only as their gross national products increase above the minimum essentials can they begin to assign priority to those resources that improve the health of their population, such as improvement in sewage treatment, securing a safe water supply, improving nutrition, maternal and perinatal care, housing and immunization. It is another question, however, for nations at the other end

From the Department of Surgery, Johns Hopkins University, Baltimore. Dr. Zuidema is chairman of the Department of Surgery and surgeon-in-chief at Johns Hopkins Hospital.

Presented as the Harwell Wilson Lecture at the University of Tennessee Center for the Health Sciences, Memphis, Oct. 13, 1982.

Reprint requests to Department of Surgery, Johns Hopkins Hospital, 601 N. Broadway, Baltimore, MD 21205 (Dr. Zuidema).

of that scale, where the United States lies. Here we must ask ourselves the critical question, whether assigning a greater proportion of our national resources toward health will make a significant difference in the overall health of our population?

Dr. James V. Maloney's presidential address presented before the American Surgical Association[1] in 1981 was entitled "The Limits of Medicine." In this paper Dr. Maloney dealt very clearly and rationally with this issue, and two of his points deserve our close attention. For example, he studied in detail the increases in hospital costs experienced at the UCLA Medical Center for the period 1970 to 1975. He showed that the "hotel type" expenses dealing with hospital operation, such as food, housekeeping, laundry, etc., were very much in line with parallel increases with the consumer price index. The total costs, however, were almost double the consumer price index, and these were related to expenses involved in the development and application of new technology, including laboratory studies, diagnostic techniques, and pharmacy.

A similar study at the Johns Hopkins Hospital conducted by Johns and Blum[2] examined the accounting of expenses for a typical 31-bed inpatient unit in internal medicine during the fiscal year 1977 to 1978. They found that half the total expense on that unit, or approximately $1 million, was spent on ancillary services, which included the laboratory, radiology and pharmacy services. Another 20% was allocated for salaries of nursing personnel and housestaff. A total of 70% of the expense of operating a typical clinical nursing inpatient unit in a teaching hospital was therefore attributed directly to the cost of clinical resources. It is clear that the major components of the total cost are primarily related to the application of new technology to patient care, whether this is delivered in renal dialysis or transplantation units, expansion of cardiopulmonary bypass surgery to treat patients with coronary artery disease, or the development of new drugs for the treatment of cancer patients.

At this point it is worth asking how then can we expect to bring about significant cost containment? Drs. Johns and Blum made the important point that although clinical resources in the aggregate make up 70% of the costs on a hospital unit, they are unusually difficult to control because they are allocated in small units, which may amount to less than $20 or $30 each. For example, in our hospital the expenditures for chest x-rays represent 32% of the dollar volume of all radiographic studies. Computerized axial tomography has attracted a lot of attention, but in truth it accounts for less than 10% of the dollar volume. The same thing holds true in our clinical chemistry laboratories, where the SMA6 and SMA12 studies together account for 28% of the total and in hematology where the automated Heme7 represents 32% of the dollar volume. It is apparent, therefore, that the relatively low cost but high volume items account for most of the expenditures of clinical resources, and this obviously complicates management problems. It is much easier to control the expenditures for a few costly resources or even to set up a surveillance program for their regulation.

Another complicating factor is the fact that several hundred physicians and medical students are involved in making thousands of clinical decisions every day, the kind of low cost but high volume expenditures which we have just noted. A recent example from my own hospital will make this clear. A great many factors probably influence drug prescription patterns among practicing physicians and the staffs of teaching hospitals. New drugs are often introduced to our formularies by staff request before staff and students have been properly educated regarding their use. The introduction and rapid growth in the use of third generation cephalosporins will illustrate this point. The hospital budget for 1981 for antibiotics was overexpended by $545,000. The 1982 budget was increased by this amount, plus an adjustment for inflation. Now after only two months we have found that our expenditures are running about $75,000 a month over the new budgetary increments. At this point it became necessary to restrict use of certain drugs by requiring a consultation before authorizing their use. This is a step that had not ever been required in our hospital before. Much of the increased cost was found to be due to improper use of drugs, following incorrect dosage schedules and poly pharmacy.

Staff education is truly hard to achieve when there are perhaps 2,000 students, housestaff, fellows and faculty involved, each with his own ideas about high quality patient care. It is important to keep the concept of quality foremost in our thinking too, lest we focus on finding inexpen-

sive solutions but begin to compromise our standards of care. It is possible to make intelligent choices in planning diagnosis and treatment that will be effective in *both* quality and cost containment. It is extraordinarily difficult to control these expenditures, but it would also be a serious mistake to underestimate the implications that this has for the spending of our health care dollars. I should note that we *do* emphasize the education of our housestaff and medical students in the area of cost containment, for we feel that this has become an essential part of medical education today. This approach has, however, been referred to by some skeptics as the "nickel and dime" approach to cost containment. There is a certain amount of truth in this point of view. This idea is referred to in Dr. Maloney's paper,[1] where he plots the effect of the successful institution of what is termed an "ideal" 20% cost containment reduction program. The institution of such a program simply results in a one-time reduction, which at best then assumes the same slope that represents the incremental costs arising from the application of new technology to patient care. Its effect is temporary, and simply results in a delay of perhaps 10 to 15 years in reaching health care costs of a percentage of the gross national product that will exceed the tolerance of our society. Dr. Maloney estimated this to be at 12.5%, and this may very well be an accurate estimate. He pointed out that the consumer is now spending more time working to pay for his medical costs than he has available to work for recreational spending. Looked at another way, the bill for health care for each union auto worker now exceeds $3,000 per year. Sooner or later the bill for health care is going to exceed the amount our society is willing to spend.

TABLE 1

ESTIMATED AVERAGE COSTS FOR CARE IN 1981

Cutaneous burn—22 day LOS	$12,320
Coronary artery bypass	$14,627
Aortic valve replacement	$15,897
Neonatal care—Premature infant (6,500 to > 100,000)	$11,968
Bone marrow transplantation (50,000-90,000)	$62,766
Average total cost per patient day	
SICU	$ 1,600
MICU	$ 1,166
Cardiac transplantation	$53,000
Renal transplantation	$39,000

For many years employees, third party carriers, federal and state programs, and labor unions "moved ahead" by assuming responsibility for the provision of more and more health services. Each of these changes became incorporated into our thinking to the extent that they are now regarded as essential, or what I would term "social entitlements." Once established, it is obviously very difficult to cut back on a program. An example is the mandated care of patients with end-stage renal disease, which was included in our Medicare legislation. Another interesting example is one cited recently by Dr. Eugene McCarthy regarding his experience with the auto workers in Detroit (personal communication). Podiatric coverage was added to their health care package at an initial cost of $8 million; the second year it had risen to $40 million, and the third year to $90 million. At this point both management and labor decided that foot care was not worth this kind of expenditure, and they attempted to put a cap on the provisions available to the auto workers. The Podiatric Association has now brought suit to enjoin Blue Cross to continue the program. This anecdote underlines the difficulty in changing health care coverage. One can only imagine the difficulties that would be encountered in changing the allocation of other resources that deal with human life, such as the end-stage renal disease program. The choice here rapidly becomes an ethical problem as well as a social one, and as long as critically ill patients in substantial numbers are involved, it is probably unreasonable to expect to see an acceptable political solution.

Some nations have dealt with this problem by limiting the resources available to the physician. In such circumstances doctors are forced to allocate resources to situations where the greatest benefit may accrue. This general approach is more likely to address the medical needs as opposed to the medical "wants" or expectations of an entire population. It is also likely, however, to set up a two-tiered system in which "comfort" surgery, or aspects of care that are expected to improve the quality of life, are available only to those who can afford it, reserving governmental resources for diseases affecting the greatest proportion of our population.

In the third world, of course, this kind of dis-

cussion is moot. We were recently presented with the problem of a premature infant with the Down syndrome and multiple congenital anomalies. A friend who had worked in Bangladesh pointed out that one infant's hospital bill was greater than the total annual budget of their entire hospital.

It is easy for us to note that we are far removed from the problems of Bangladesh, which seem so remote as to be almost irrelevant to our discussion today. While this may be true to a certain extent, in a larger sense we share the same problems. Some of the current costs for patient care may bear the same relationship to our economy as the costs of basic care in Bangladesh bear to that struggling nation's budget.

Table 1 shows the costs of managing some common and some not-so-common conditions. We have made remarkable progress in treating patients with these particular problems, but we have not had to give thought to how the costs mount up. This is an area of rapid change, however. The state of Maryland has a Health Services Cost Review Commission, which is responsible for setting hospital rates. While this system has been effective, it has also exposed us to the ways in which the bureaucracy approaches cost containment. Health care is well on its way toward being viewed and regulated as a public utility. We have also seen how in Maryland our state Department of Health has dealt with the Medicaid cutbacks—by limiting payments to 20 days of hospitalization, with the result that hospitals caring for trauma patients, high-risk pregnancy groups, psychiatric patients, and premature infants are the ones to bear the full brunt of the cuts. Our cost commission has not agreed to adjust our rates to make up for this shortfall. The result has been catastrophic for certain hospitals. Five of the 70 hospitals in our state have had to absorb almost the total impact of this cutback, while two and three day admissions for foot care, for example, go unchecked. This may be only a hint of some of the problems in store for us as more entitlement programs are shifted from federal to state responsibility.

TABLE 2

COMPARISON OF TREATMENT COSTS

	Inpatient	Outpatient Maximized	Resource Savings
Cervical cancer	$27,149	$12,203	$14,946
Hodgkin disease	$38,743	$12,738	$26,005
Lung cancer	$62,420	$38,997	$23,422
Leukemia	$33,916	$16,183	$17,733
Breast cancer	$24,731	$ 9,816	$14,915

We often tend to trap ourselves in another way within a series of bureaucratic rules and regulations. For example, Dr. Albert Owens, who heads our Comprehensive Oncology Center, has calculated the costs of treatment of some of the major diseases seen in that center. He has estimated the 1981 costs for five major malignancies (Table 2). He and his staff have pointed out that certain aspects of this care could be carried out on an ambulatory basis, using the center selectively for highly specialized aspects of care. The benefits of this, together with potential savings, are also shown in that table. Unfortunately, their proposal was not acceptable to third party carriers, who felt that it would be difficult to control expenditures in this mode, and preferred to deal with all patients as inpatients throughout most of their illness.

Some 160 million Americans now have major medical insurance coverage. When one adds the numbers of those with Medicaid or Medicare coverage, we see that most of our population is protected from the harsh realities of having to pay their health care costs directly. This insulates most of our society from reality; it subtly diffuses public concern, and delays the time for decision making. We need only witness the current debate over what to do about our Social Security System as we watch that federal program move steadily into bankruptcy. It is entirely possible to have a major crisis in health care expenditures arrive on our doorstep as Congress deals with it in the same piecemeal fashion, program by program, without facing the larger issues.

There is no apparent magic solution to the problems of cost containment, but it is vitally important for our profession to assume a higher level of interest and responsibility in this area. In April 1968, an organization called the Club of Rome was formed to look at the world's natural resources and the way in which they were being utilized by the various countries and societies. One outgrowth of this activity was the publica-

tion of a small book by Donella Meadows, et al entitled, *The Limits of Growth*.[3] This book spelled out very clearly the problems that could be anticipated unless the peoples of the world learn that this planet does not possess unlimited resources, and that sooner or later succeeding generations are going to face difficult times as one after another of these resources run out. These concerns should be every bit as real when it comes to containing health care costs. The need to somehow limit expenditures and ration the utilization of resources must be confronted and solved.

Physicians have been taught to save lives regardless of costs, and politicians have learned to try to please everybody, regardless of costs. The problem of how to approach a resolution of this situation was noted in the 1976 Martin Memorial Lecture given by Alexander Heard, Chancellor of Vanderbilt University, at the Clinical Congress of the American College of Surgeons.[4] His talk, entitled "The Paradoxes of Plenty" included the statement, "Here is the paramount irony. The United States is the most productive and freest society, possessed of the greatest opportunity for individuals, among all comparable political entities in the world's history. Yet it is beset by problems so fundamental and intractable as to erode our faith in our own destiny.

"We are not truly sure that we can provide health care and educational services of the kinds people want, even less sure we know and can provide the kinds they need, and we are especially unsure that the United States can afford either."

The resolution of this problem will be one of the most difficult professional and political decisions to be addressed in the next two decades. It is also important to recognize, however, that the question cannot be avoided indefinitely.

The American Hospital Association has sponsored its "Voluntary Effort," designed to cut back on costs, with each hospital participating at its own local level. Unfortunately, for several reasons this has not been the success we had hoped it would be. While we have seen the need for cost containment in a global sense, there has been too little personal involvement to have much effect. There is some evidence that it can be done. Hospital management corporations have shown that hospital operation can be very profitable, and in fact such corporations have had excellent records as growth stocks in our current economy. On the other hand, we have some hospitals that face internal conflicts of interests. Probably a majority of the acute care non-federal hospitals in this country make a profit on their laboratories, pharmacies, and departments of radiology. As long as this holds, there is no incentive to cut back on unnecessary tests or x-rays, or to alter practice patterns.

Mounting governmental concern will, in my estimation, lead to two major changes in our reimbursement patterns. First, we can expect to see federal and/or state rate control legislation. Our experience in Maryland would indicate that at best this represents a very mixed blessing. The second trend that appears to be emerging is toward a program under which federal or state governments will purchase care from providers at the lowest cost. While there are potential major disadvantages to both patients and physicians, it is likely that fiscal constraints will override. Such programs put university medical centers and hospitals, which offer extensive programs in tertiary care, at a substantial disadvantage, for the cost of tertiary care will obviously inflate the cost of routine primary and secondary care, and teaching centers may no longer find themselves with enough patients to support educational programs.

It is hard to escape the conclusion that we need to bite the bullet and set up our own intra-hospital mechanisms. We need to do this through our own involvement, for only we know where to apply ourselves to be most effective while interfering least with quality and with essential services. Failure to take this step will only make us vulnerable to external forces which will have entirely different agendas and priorities. It is clearly up to us.



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Physician Accountability In the Mid-1980s

PAUL R. STUMB, M.D.

In 1910, Abraham Flexner published his report concerning the quality of education available in the medical schools in this country. As a result of this report, the curriculum was altered in most schools and a great number actually closed and ceased to operate. In effect, what Dr. Flexner said to medical educators was that "*You* are *accountable* for the quality of training and thereby for the quality of medicine that is practiced in this country." The end result has been that we now have available in the United States the finest health care delivery system in the world. In 1910, physicians were told "You have the makings of a good thing going, but you've got to clean up your act. You've got some housekeeping chores to perform if you're going to put forth the excellent product that you're capable of producing." Our medical forebears were told "You are accountable" and they responded.

Once again we are being held accountable– and this time not for the *quality* of our product but for its *cost*. Our profession has created a situation wherein *every* citizen of this country has access to both high-technology diagnostic tools and sophisticated treatment; up to this point, we have done all this without paying much attention to the costs we were generating. And now the Flexner voice is rising up out of the past once again to say "You have a good thing going but you've got some housekeeping chores to attend to"—once again "You've got to straighten up your act." The quality of our product is no longer the issue. The problem now is that our nation can neither collectively nor individually afford its health care system. Once we have recognized that a problem exists and have accepted our responsibility in addressing it, the next logical question is, "What do we do now?"—or more specifically, "What is it going to mean to me personally? How will the changes that occur affect my own practice?"—or even more cogently, "How painful will it be? How much will it hurt?"

Well, I can assure you that in the next five years changes *will* occur in our medical practices—changes brought about by the necessity of controlling costs. Some of these changes will be minor and some major, but their impact certainly will be greater, say, than 16 years ago when Medicare appeared on the scene.

Rather than take on the ambitious and presumptuous task of listing in 1-2-3 fashion what we must do, I should like instead to try to project what things will be like in five years. It is actually fairly easy to consider some of the specific problem areas in the generation of health care costs and look ahead and examine a few of the features of medical practice in the mid-1980s. Just how we get there from where we are now will be up to us—to corporate medicine's admission of its accountability and then to our own ingenuity in tackling the problem. I am personally confident at this point that we will rise to the task and not sit back and let the federal government dictate a new existence for us.

What will the practice of medicine be like five years from now? The first and most obvious difference will be the decreased use of the hospital for both diagnosis and treatment. Each of us is aware of the dramatic increase in the cost of all aspects of in-hospital care. I suspect that you and I share the same feeling that when *we* put a patient in the hospital he *needs* to be there and he is there *only* as long as is *absolutely* necessary—it's all the bad guys out there, those other doctors, who overutilize hospitals and are responsible for the abuses that occur. We need look back only a few years and remember a really exciting game we used to play called PSRO—the federally mandated attempt to control hospital utilization. It didn't work; but I can safely say that *some* mechanism of effective utilization control will soon be with us. Just what it will be remains to be seen.

The second altered feature of medical practice in five years, and a natural concomitant of less-

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ened hospital use, will be the increasing use of outpatient diagnostic centers and short-stay surgical units. And something that will make almost all of us change our practice habits—surgeons, internists, all physicians who practice in hospitals—is the admission of patients for routine surgery on the *day of surgery* rather than the day before. This will mean we are pushed a little more to get a history and physical note in the chart and the laboratory work, chest x-rays and EKGs done. But at a $300 saving for one less day of hospitalization per case, the inevitability of this change is obvious.

Five years from now another change in our system as we know it now will be some workable system of fee setting. We find ourselves in the interesting paradoxical situation in which everyone concerned has two conflicting interests. Each participant—consumer, provider, and federal legislator—has factors pulling at him in both directions, some increasing and some decreasing costs. The patient wants to continue to be able to obtain the highest quality care (and to have it available immediately), but he wants to pay a reasonable—not excessive—price for it. We physicians want to keep costs down or, at least, we want this to be our public image, and yet—we have our spouses' sometimes frankly expensive tastes to support, and our own sometimes inflated egos as relates to the life-style we maintain. And the third participant—our friend the federal government—contributes its dysharmony to the picture by decreeing that on the one hand we must be competitive, allow advertising, and let market supply and demand factors determine prices, and at the same time telling us that fee schedules represent unfair competition, are "in restraint of trade," and are therefore unlawful. But somehow in the setting of all these conflicting interests, I feel certain that like it or not within five years some method of controlling our fees will have been instituted.

Another item that I see assuming much greater importance in five years is the role of patient education in the health care picture. A case in point: "Primary care of upper respiratory infections—the reason for a large number of physician-patient encounters—is largely a ritual whose chief product is some solace of the patient. Under such circumstances it may not make much difference whether he gets chicken soup, a Navajo healing ceremony, aspirin, or laboratory tests and antibiotics. All comfort the patient and relieve his anxiety. They are not specific for the illness, which takes care of itself."[1] The cost impact, however, may vary greatly among the several treatment options available, and we will see our practices changed in ways that allow for all of our patients being better informed. The challenge will be to accomplish this without bringing in what we all know as "sophomore medical student neurosis," and it will be our responsibility to see that the overly zealous writers of medical articles in our newspapers and magazines and on TV are accurate and helpful in their portrayal of health care issues rather than adding to the problem, as is now sometimes the case.

A final problem area—which I will mention only briefly—is the enormous amounts of money now being channeled into high-tech acute and chronic care for relatively short-term survivors. I refer here to the use of intensive care units, renal dialysis, and the like in cases where life expectancy even at best is limited. A recent article revealed that in a follow-up of patients over age 65 treated in a certain medical intensive care unit, 90% had died within ten months after their discharge from the unit. This is a grim figure, and a topic we greatly dislike discussing, but I think that another inescapable feature of medical practice in five years will be a workable mechanism for decision-making in these areas where long-term survival is doubtful and such huge costs are involved.

To summarize: In five years we will see:

- decreased use of hospitals;
- increased use of outpatient diagnostic centers, and short-stay surgical facilities;
- some workable mechanisms for fee-setting;
- new innovative and practical methods of patient education;
- some system for decision-making when high cost treatment options are available for statistically low-survival diseases.

These are a few of our problems. I believe they will be solved simply because they have to be solved. And I think that you and I will solve them rather than having a new set of legislated unworkable remedies forced upon us in the form of additional bureaucratic regulations handed down from Washington. Some seventy-odd years ago physicians were told "You have a problem," and they corrected it. Certainly we now are no less responsive to the need and no less aware of our accountability.



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Commentary

Bleauing in the Fontainebleau: The 1982 AMA Interim Meeting

JOHN B. THOMISON, M.D.

The AMA House of Delegates met in Miami Beach at the Fontainebleau Hotel Dec. 5-8, with 305 delegates seated, 236 representing state medical associations, 61 representing national medical specialty societies, and eight representing the uninformed services, medical schools, medical students and residents, and the VA.

Most of what I will present here has already been reported elsewhere, and a lot of the reporting is really well done, as *AM News*, for instance, has good, knowledgeable reporters. What I have to add is a perspective from the Tennessee delegation. I keep telling myself someone out there is interested.

Ever since I first became involved with the AMA some ten years ago, there have been periodic attempts to shorten the sessions; to no avail. As it has become more expensive to live in hotels, the Board and staff of both the AMA and its component societies have intensified their efforts, and at the same time the delegates, who pay more in time away from their practice, have added theirs. Several means for accomplishing this contraction were proposed this year, but in the last analysis it boiled down to whether one wanted to add a day at the beginning in order to save one at the end. Since the proof of the pudding is in the eating, and at each session the House does well to finish in its allotted time, as happened at each previous attempt the plan was not adopted. The House reaffirmed its intention to remain the policymaking body of the AMA, and shortening the sessions would doubtless require shifting some of that responsibility to the Board. Once again, the House simply urged its speakers and its members to streamline procedure and shorten their comments as much as possible, and it also voted to reexamine its procedures every five years. *Déjà vu.*

While their mates enjoyed the refurbished Fontainebleau and Miami's rebuilt wide beach, courtesy of the Corps of Engineers' dredging activities, the delegates spent their allotted days indoors, delegate instead of bikini watching. The House simply cannot resist the urge to act as a committee of the whole, and there is much rehashing of what was thoroughly done in reference committee. I believe, though, it is not so bad as it used to be. So now, down to business.

Report R of the Board of Trustees, addressing the size and composition of the House, generated a great deal of discussion. The report was prepared in response to concern by the delegates that the votes of state society delegates were being diluted by the number of specialty society delegates, that the specialty societies only had one delegate no matter how large or small, and that some specialty disciplines were represented by more than one specialty society. The House reaffirmed the value of specialty society representation in the House and urged those societies to continue to meet the criteria that gained them a seat in the House. Rather than grant them delegates, the House voted to invite the American Hospital Association and the American Dental Association to send observers to AMA meetings. It also rejected recommendations to provide a delegate seat for state society presidents and to provide proportional representation to specialty societies.

There has been a great deal of tampering with the practice of medicine by all sorts of groups and agencies, even to the point of seeking to redefine the terms "physician" and "medical practice." The Department of Health and Human Services (DHHS) is considering regulations that would broaden the term "physician" to include dentists, optometrists, podiatrists, and chiropractors, and which would extend hospital staff privileges to nurse practitioners and nurse midwives. The House, in response, adopted Substitute Resolution 47, which resolved that the AMA reaffirm the definition of physician as "a person, having been regularly admitted to a medical school duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in medicine, and has acquired the requisite qualifications to be legally licensed to practice medicine"; it further resolved that the AMA oppose efforts to broaden this definition. Substitute Resolution 53 resolves further "that the AMA, in the public interest, urge state medical associations to oppose enactment of legislation to authorize the independent practice of medicine by any individual who has not completed the state's requirements for licensure to engage in the practice of medicine and surgery in all of its branches." Substitute Resolution 28 resolved among other things that the AMA vigorously oppose any regulations under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) that would interfere with and/or redefine the practice of medicine.

To decrease expenditures of federal funds for Medicare and Medicaid, the DHHS has experimented with a number of plans, among them the use of diagnostic related groups (DRG) developed in New Jersey. In addition to asking that the entire subject of prospective reimbursement be studied by the appropriate council of the AMA, to report back to the House at the 1983 Annual Meeting, amended Resolution 27 resolved that the AMA petition the Congress and the Secretary of the DHHS to take an extremely cautious approach to DRG reimbursement, and also to broaden its experimental reimbursement formula beyond the DRG concept, using implementation on an experimental basis only, and restricting it to selected areas before imposing it nationally. Substitute Resolution 28 resolved that the AMA oppose any TEFRA regulations that would substitute hourly wages or annual salaries for present reimbursement mechanisms for physicians' services to patients, that would base physician reimbursement on any system that does not give recognition to knowledge, skill, time, and effort, or that would otherwise impinge significantly upon the practice of medicine. Such regulations would, of course, have the effect of decreasing both availability and quality of medical care to the general public.

The allegation was made by a number of members of the House, some of them in positions giving them special information along these lines, that the burden of federal health care expenditures has put the present administration in the position of demanding cost cutting at the expense of any regard for quality. Since one of the effects of the DRG's system would be to shift costs to private patients, Resolution 6 resolves that the AMA continue to oppose changes in the Medicare and Medicaid hospital reimbursement system that would result in cost shifting to private patients, and continue to widely publicize the deleterious effects on the private sector of such cost shifts in efforts to save dollars for federal programs. In addition, Resolution 58 reaffirms the AMA's commitment to payment for medical services based on services rendered, so that institutionally based salaried physicians should be reimbursed on the same basis as physicians who practice in noninstitutional settings.

The entire matter of prospective reimbursement for hospitals is addressed by the Board of Trustees in its Report F. Report D of the Council on Medical Services discusses potential government methods of cutting Medicaid expenditures, and suggests approaches that might be taken by medical societies and individual physicians to maintain access to medical care for the poor. Both of these reports were adopted by the House, with the recommendation that they receive wide dissemination, and to assist in this, both reports are being published in the *Journal*.

One of the most significant pieces of legislation to be enacted in 1982 as a portion of PL 97-248, the TEFRA, is the series of provisions authorizing the establishment of Utilization and Quality Control Peer Review Organizations (UQCPROs), subtitled the Peer Review Improvement Act of 1982, or the "Durenberger Amendment." This program was effective immediately on passage, and the organizations it establishes supersede the

old PSROs. Report G of the Council on Medical Service, which we will publish, reviews the provisions of the act and discusses its implications for medicine, including some unresolved questions. Among the positive implications for medicine is the ability of medical associations to contract with DHHS for furnishing the services, but there are also provisions for nonphysician organizations, including health insurers, to perform the review if the Secretary is unable to contract with physician groups. This creates the potential for the program to focus on cost over quality, which has been pointed out previously as being the administration's chief aim. In addition, the statute authorizes review of virtually every service performed under Medicare, including those performed in physicians' offices. The implications of this act are far reaching, and you should become familiar with its provisions. As of the present time, regulations have not been developed, so that the manner of implementation of the act is as yet unclear.

Hospital practice received considerable attention at the meeting, one of the chief items being the formation by the House of a section on hospital medical staffs. The formation of the section grew out of a report of the Study Committee on Hospital Medical Staffs, which made six recommendations, only the first two of which were passed as submitted. Recommendation No. 5 was defeated, and Recommendations Nos. 3, 4, and 6 were amended. The amended recommendations are listed below. Attempts at defining membership of medical staffs were defeated as being illegal under the strictures imposed upon medicine by the Federal Trade Commission.

RECOMMENDATION 1:
That the House of Delegates approve the establishment of a Hospital Medical Staff Section of the AMA.

RECOMMENDATION 2:
That the Hospital Medical Staff Section shall have a governing council including one delegate and alternate delegate to the House of Delegates.

RECOMMENDATION 3 (as amended):
That representatives to the Hospital Medical Staff Section shall be members of the AMA, encouraged to be members of their state and county medical societies, nominated and elected by the active voting physician members of the medical staff, and must have clinical privileges at the institution they represent.

Initially, representatives to the Section may be selected by the elected physician leadership of the medical staff; however, after July 1, 1984, proof of nomination and election by members of the active voting physician medical staff shall be required.

RECOMMENDATION 4 (as amended):
That the Hospital Medical Staff Section shall be organized as an open assembly to which each hospital medical staff would be eligible to send one elected representative. All state and county medical societies are urged to work closely with medical staffs in their areas to facilitate participation in the Section. A possible model would be a Hospital Medical Staff Section at the Annual Meeting of each state House of Delegates and a Hospital Staff Liaison Committee in each county medical society, where appropriate.

RECOMMENDATION 6 (as amended):
That AMA offer assistance and support to state and county efforts to relate to hospital medical staffs; and that the Board of Trustees report on the progress and the cost of the Hospital Medical Staff Section at appropriate times.

A number of resolutions were received that would have instructed or encouraged the AMA commissioners to the Joint Commission on Accreditation of Hospitals (JCAH) in various of their activities. The House was informed that restricting the commissioners in such a way would have a deleterious effect on their activities and diminish their effectiveness, and could even place the Association in jeopardy as regards the FTC. Instead of adopting any of the four resolutions, the House reaffirmed existing policy (Resolution 13, A-82) along with a filed statement that the AMA support the concept that fully licensed physicians be responsible for making recommendations directly to the governing body of a hospital concerning the medical staff. The amended resolution follows.

EXISTING AMA POLICY (Resolution 13, A-82) WAS *REAFFIRMED IN LIEU OF* RESOLUTIONS 25, 44, 51 AND 56 AND:

(1) That the AMA Commissioners to the JCAH be commended for their efforts to develop methods of preserving appropriate physician involvement in the maintenance of quality patient care throughout the process of revising the "Accreditation Manual for Hospitals";

(2) That proposed revisions to the JCAH "Accreditation Manual for Hospitals" be widely disseminated for comment and that the AMA inform physicians of subsequent revisions in the Manual through appropriate publications; and

(3) The following statement was *FILED*:

That the AMA support the concept that fully licensed physicians (MD/DO) be responsible for making recommendations directly to the governing body of a hospital for its approval on the following:
1. The structure of the organized staff;
2. The mechanism used to credential and to delineate

the clinical privileges of the organized staff;
3. Recommendations for organized staff membership and clinical privileges for each applicant or member of the organized staff;
4. The organization of the quality assurance activities of the organized staff, as well as the mechanism used to conduct, evaluate and modify such activities;
5. The mechanism by which membership on the organized staff may be terminated; and
6. The mechanism for fair hearing procedures.

One of the major accomplishments during the past year occurred in the area of continuing medical education, which has been a scene of major unrest in medicine over the past several years. The current accrediting body for continuing medical education is the Accreditation Council for Continuing Medical Education (ACCME), a freestanding body sponsored by the various organizations having to do with continuing medical education, of which the AMA is one. A couple of years ago, soon after it was formed, the ACCME produced a new set of Essentials for accreditation, which was approved by all of the sponsors except the AMA; approval by the AMA House was contingent upon the production of guidelines as to how the Essentials were to be applied, since there were points in the Essentials that had the potential for working a distinct hardship on some institutions, and particularly on state medical associations.

At the annual meeting in June the Council on Medical Education volunteered the services of its Advisory Committee on Continuing Medical Education to draft the guidelines. The committee worked throughout the summer toward a draft copy, and the finished document was produced at a weekend meeting in September, in time for review by the Council, review and revision at the Conference of the State CME Committee Chairman in October, re-review by the Council, and review by the ACCME prior to the December meeting of the House. Although there was a fair amount of discussion of the guidelines in reference committee, recognizing that there would never be any document with no objections at all, the committee resisted the temptation to tamper with the guidelines, and they were finally approved by the House. The result of it all is that we now at last have a new set of Essentials, with guidelines. Although these will be disseminated to the individuals in various hospitals and organizations having to do with CME, I will publish them in the *Journal* for general information. This is indeed quite a milestone. At the same time, a protocol for recognition of state medical societies to accredit intrastate continuing medical education sponsors was also adopted.

The other major item in the area of continuing medical education had to do with first year residency programs. Until the present time, there has been a considerable excess of first year positions over the number of graduating medical students available to fill them, and this has accounted to no small degree for the influx of foreign medical graduates, who were used to fill these necessary but unfilled positions. If they have not already done so, the curves are due to cross very shortly, so that instead of an excess of first year positions, there will now be an excess of applicants for them, and there is a danger that in the very near future medical graduates will find they have no hospital appointment. This has come about largely through funding reductions. A number of Council reports and resolutions addressed this problem, and without having any definite answer at the moment, the Council on Medical Education is continuing to closely monitor the situation. Some of the remedial measures suggested are of doubtful legality.

The matter of competition in medicine came in for considerable discussion through various reports. CMS Report E deals in some detail with aspects of medicine that are changing in response to competitive economic pressures, including changes in practice arrangements, relations between physicians and hospital, reimbursement policies of third party payors, and professional relations among physicians. AMA policy supports the concepts of fair market competition and neutrality of public policy among alternative health care delivery systems. Because this report is a fairly comprehensive examination of the practice climate in which physicians find themselves today, the report will be printed in the *Journal.*

In addition, in its Report F, the CMS summarizes information available to date on "preferred provider organizations" (PPOs), in which hospitals and/or physicians contract to provide health services on a fee-for-service basis to subscribers for a predetermined price. The Council's Report J is a status report on HMOs, noting trends which, if continued, will represent a significant increase in annual growth of plans, but a decrease in the growth rate of HMO enrollment.

Health care coalitions received encouragement in Resolution 49, but the House asks that strong physician participation be encouraged so that primary emphasis is given to quality, availability, and access to medical care.

Although it sometimes seems that the major, if not even the only, interests of the AMA are the political and socioeconomic aspects of medicine, and indeed this is a charge that has sometimes been leveled at the Association, the health of the public received a large share of attention. At its Annual Meeting, the House approved a "health policy agenda for the American people," the purpose of which is to provide a broad based outline of major concerns for the health sector. This project will give the AMA and others in the health sector (including various levels of government) the opportunity to abandon the traditional, year by year, piecemeal development of policy that responds only to pressures of the moment.

In its Report P, the Board of Trustees outlined the activities of the months following approval of the agenda at the 1982 Annual Meeting. These have focused mostly on establishing various multi-organizational units that will actually conduct the analysis, developing it and redefining the specific methodology that will be used in the initial phase of the work, and organizing staff resources. The project is expected to take at least three years. The House directed that the AMA forward timely reports of the activities of the National Health Policy Agenda Steering Committee to all state medical societies and AMA delegates and alternates for review and input. It also directed that each work group be increased by two members who are in the private clinical practice of medicine, to be selected by the AMA president on a regional basis, and an additional member on each group to be appointed by the Board of Trustees. This action stemmed from the concern of the House that even though the other members of the work group are clinically oriented, the academic sector predominated.

The Council on Scientific Affairs issued its usual number of excellent definitive studies on various aspects of medicine and the public health. As the House has directed that in the future these reports be made available to all members as a monograph, the first one, for 1981, having just become available, I will do no more than mention them here. They are entitled Addition of Thiamine to Alcoholic Beverages; Calcium Channel Blocking Agents; Physician Mortality and Suicide: Results and Implications of the AMA-APA Pilot Study; Percutaneous Transluminal Angioplasty; Automobile Related Injuries: Components, Trends, and Prevention; Automobile Restraints for Infants and Children; AMA Involvement in Prevention and Treatment of Child Abuse and Neglect; and Pneumococcal, Influenzal, and Hepatitis B Vaccine.

Several resolutions addressed the problem of the impaired physician, including the impaired medical student and house officer. It was pointed out that alcoholism is a significant problem among house officers and medical students, and two resolutions were directed at this problem. In lieu of those two resolutions the House adopted Substitute Resolution 80, which directed the AMA to support the teaching of the prevention of physician impairment to medical students and residents, and to recommend that state medical society committees on physician impairment, and institutions offering medical education, address students' and residents' problems with substance abuse. In short, instead of establishing additional programs, this would encourage the inclusion of those groups in existing impaired physician programs.

In addition, the House reaffirmed its previously stated position of requiring alcoholic beverages to be labeled as injurious to health, particularly during pregnancy, and encouraging the media not to accept advertising of alcoholic beverages. It also adopted Resolution 52, asking the AMA to encourage each state society to seek and support legislation to raise the legal drinking age to 21 years.

At the 1982 Annual Meeting the House adopted the address of the President, Daniel T. Cloud, M.D., which made specific recommendations referable to the AMA's activity in preventive medicine. These are outlined in the Board of Trustees Report A, and the AMA's activities along these lines are summarized in the report. Because this gives a broad survey of the activities in preventive medicine in this country, the report will be carried in the *Journal*.

The matter of medical response to nuclear war is emotionally charged, and has inspired some remarks of sheer idiocy. It is certainly true that in nuclear war the majority of the physician population and medical facilities would doubtless be destroyed, making an organized, adequate re-

sponse impossible. Nevertheless, such physicians as survive are under the obligation to treat as many individuals as possible in the best way they can with whatever facilities they find available. To say that planning is useless and simply produces a false sense of security is a patent "cop-out."

Report I of the Board of Trustees describes the AMA's continuing study of the effectiveness of the relocation and shelter plans proposed by the Federal Emergency Management Agency in reducing the medical consequences of nuclear war. This report was adopted by the House, with two amendment paragraphs, one of them a masterpiece of asininity, but ameliorated to some extent by the second paragraph, which was thrown as a sop to those of us who believe that doctors have to be doctors in whatever situation they find themselves. Since I am closing this report with the next paragraph, on the chance that you might miss it, Report I of the Board of Trustees immediately follows this article.

I am sure that among our readers there will be those, like some of our colleagues in the House, who will disagree with my position on this or anything else. This being a free country, I can only say, "Be my guest." Since I am the editor, I have the last word, unless someone chooses to open a debate in Our Mail Box, which is fine too.

AMA 1982 Interim Meeting Report

Proposed Crisis Relocation Shelter Plans

Resolution 78, which was adopted at the 1982 Annual Meeting, calls on the AMA to study the effectiveness of the relocation and shelter plans proposed by the Federal Emergency Management Agency (FEMA) in reducing the medical consequences of nuclear war.

The debate rages on between those who believe that the United States must have a civil defense preparedness program and those who believe that civil defense programs are useless and provocative at best. The debate includes the FEMA's proposed shelter and crisis relocation plans referred to in Resolution 78 (A-82). Innumerable articles have been written on both sides of the civil defense issue.

Some opponents of civil defense claim that nothing can be done to protect people from a nuclear attack. Others believe that civil defense efforts will lull the public into a false sense of security. Still others claim that civil defense diverts the attention of the nation from pursuing a course of action that will lead ultimately to the prevention of nuclear war.

Proponents of civil defense programs believe that on humanitarian grounds there should be health preparedness programs to protect citizens by providing shelter and crisis relocation plans. They believe that it is socially irresponsible to suggest that nothing could be done for survivors of a nuclear attack. They believe that physicians would be acting in an irresponsible fashion by not recommending a course of action to minimize deaths and help the injured.

Studies continue to be undertaken on both sides of the civil defense issue and specifically on the crisis relocation and shelter plans of the FEMA. The AMA does not have the expertise required to become directly involved and would be duplicating work already completed or under way by numerous physicians and other scientists knowledgeable in the field.

The AMA will continue to study the expanding body of knowledge related to civil defense preparedness and proposed crisis relocation and shelter plans and will continue to inform the public and the profession of the medical consequences of nuclear war.

The Board recommends that this report be adopted.

This is AMA Board of Trustees Report I, submitted to the House of Delegates at its Interim Meeting in December, 1982. Past House Action: A-82:237.

AMA 1982 Interim Meeting Report

Peer Review Improvement Act of 1982

On Sept. 3 the President signed into law the Tax Equity and Fiscal Responsibility Act of 1982 (PL 97-248). Included in this Act is a series of provisions that authorize the establishment of Utilization and Quality Control Peer Review Organizations (UQCPROs), subtitled the Peer Review Improvement Act of 1982, and popularly termed the "Durenberger Amendment" to conduct many of the same functions as Professional Standards Review Organizations (PSROs). The UQCPRO program is effective immediately. The purpose of this report is to outline for the House of Delegates the major provisions of the statute, discuss implications of the legislation and make recommendations as to future Association activity with respect to this new program. This review is based solely on statutory language, since no enabling rules or regulations have yet been developed.

Purpose, Definition and Structure

The Peer Review Improvement Act of 1982 repeals the existing PSRO program and replaces it with the UQCPRO program. This Act gives the secretary of the Department of Health and Human Services the authority to contract with UQCPROs for the purpose of "promoting the efficient and economical delivery of health care services, and of promoting the quality of services" for which payment is made under the Medicare program. In addition, state Medicaid agencies may contract with UQCPROs for utilization review, with the federal share of reimbursement being 75% of the administrative and review costs.

Definition—The term UQCPRO is defined as an entity which "is composed of a substantial number of licensed doctors of medicine and osteopathy engaged in the practice of medicine or surgery in the area" or an entity which has available to it, by arrangement or otherwise, the services of a sufficient number of physicians engaged in the practice of medicine or surgery, to assure the adequate peer review of the services provided by the various medical specialties and subspecialties. A function of UQCPRO is to determine whether the quality of services furnished are or were reasonable and medically necessary, whether the quality of services furnished meets professionally recognized standards and whether services furnished could be "effectively provided more economically on an outpatient basis or in a different type of health care facility." (PSRO statutory language refers to the "appropriate health care setting," and does not specify outpatient or different type of health care facility.)

Area Designation—The law presumes that each state will be designated as an UQCPRO geographic area. However, where a local or regional area has more than 60,000 annual hospital admissions, the secretary may designate a specific regional area. In each designated area, the secretary must enter into a contract with an UQCPRO to conduct review.

Contracts—Physician groups are given priority in contracting as the review organization, and the law does *not* preclude a medical society from contracting as an UQCPRO. Health care facilities, their associations and affiliated organizations may not contract to serve as an UQCPRO. If the secretary is unable to contract with a physician group within one year of the time when contracts are being let, as defined by the date of release of the Request for Proposal for UQCPRO contracts, he may contract with entities that "directly or indirectly make payments to any practitioner or provider whose health care services are being reviewed," i.e., insurers, to conduct the mandated review. Contracts with UQCPROs will be for an initial term of two (2) years and renewable on a biennial basis.

Included in the contract will be "negotiated objectives and specifications for use of norms of performance." The negotiated objectives will be used by the Health Care Financing Administration (HCFA) to evaluate each UQCPRO's performance. Furthermore, the review organization must also make its facilities and resources available for contracting with other "private and public entities paying for health care."

Functions

The review process is similar to the review conducted by PSROs, with the UQCPRO authorized to make conclusive determinations, notify the practitioner or provider of claim disapproval and provide an opportunity to discuss a negative determination, including appeal if necessary. The UQCPRO must review "some or all" of the area's professional activities relating to the health care services and items for which Medicare pays. It also must review the pattern of the quality of medical care against objective criteria that define acceptable and adequate practice.

Review—The statute authorizes UQCPROs to review virtually any or all services covered by Medicare. UQCPROs may conduct preadmission, concurrent and/or retrospective review, may examine the pertinent records of providers or practitioners where review is taking place, and may inspect the facilities where services are being provided. They also may conduct focused review. All review must apply professionally developed norms of care, diagnosis and treatment, and base determinations on typical patterns of practice in the region. The norms may be based on national norms where appropriate. All norms must recognize "different but acceptable modes of treatment."

Confidentiality of Data—UQCPROs must keep and maintain records in a form to be determined by the

This is AMA Council on Medical Service Report G, submitted to the House of Delegates at its Interim Meeting in December, 1982. Past House Action: A-82:139-153; I-81:136-139; A-81:213; I-80:149-152.

secretary. They are to provide data and information to assist federal and state agencies in identifying and investigating patterns of fraud or abuse and in licensure and certification proceedings. UQCPROs are deemed not to be federal agencies for purposes of the Freedom of Information Act.

Sanctions—An UQCPRO may sanction a provider or practitioner from the Medicare program in cases of gross or flagrant violations of the obligation to furnish appropriate care. This process is similar to that used by PSROs and offers a right of appeal and judicial hearing.

In addition, the Act provides both civil and criminal immunity to individuals who provide information to peer review organizations in situations where the information is related to the performance of review and the information is not knowingly false.

Unresolved Questions

Under the new statute, existing PSROs will continue to operate until the secretary has entered into a contract with an UQCPRO for the review area. (Existing PSRO contracts may be renewed for a period shorter than 12 months, to facilitate the continuity of review and establishment of UQCPROs.) In general, the functions of this new program are similar to that of PSRO. However, since the rules and regulations to implement the program are not yet developed, the details of UQCPRO operations are not definite. There are several statutory provisions in the law that will need to be clarified in upcoming regulations; these include:

Medical Society Opportunities—At present there are approximately 150 functioning PSROs. Under the provisions of this Act, there will be a minimum of 50 UQCPROs nationwide, with the possibility of additional review organizations in large metropolitan areas. Exactly how many UQCPROs will exist across the country will not be determined until the area designation regulations are developed. According to HCFA staff, the issue of area designation has been targeted as a priority item. Accordingly, this will be one of the first regulations to be developed, but, until it is, opportunities for medical societies to serve as UQCPROs cannot be completely identified. However, it is apparent that opportunities already exist for medical societies to seek UQCPRO contracts in areas where PSROs no longer function (e.g., Wyoming, areas of Indiana, Louisiana, etc.).

Contract Negotiation—The statute specifies that physician groups will be given priority consideration in contract proceedings; contracts will specify negotiated objectives and reimbursement details. Several questions remain unanswered:

(1) How will contract objectives be established in the negotiation process; will they emphasize quality or cost? Does the federal government have a predetermined set of objectives for the program?
(2) What will be the determining criteria if more than one physician group (e.g., an existing PSRO, and a foundation or medical society) bid for contracting in an area?
(3) How will physicians be compensated for their services to the UQCPRO; will payment be on the basis of a negotiated rate or will it be set by regulations? (PSRO established an hourly rate by transmittal.)

Area Designation—The new law presumes that each state will be designated as an UQCPRO geographic area. It also stipulates that where a local or regional area has more than 60,000 hospital admissions, the secretary may designate a specific regional area. Does this mean that a large metropolitan area with several hundred thousand annual hospital admissions may be divided into more than one UQCPRO area?

Program Funding—According to the new legislation, the UQCPRO program will be funded solely from the Medicare Trust Funds at a level sufficient to meet the contractual obligations with the reviewing organizations. In addition, the National Professional Standards Review Council (NPSRC) is terminated as are all Statewide PSRO Councils. The legislation has no provision for an advisory council to the secretary.

Implications for Medicine

Even though the statutory language raises several questions, the implications for organized medicine are far reaching. The program provides opportunity for the state and large metropolitan medical associations to bid on contracts, and state medical associations have already contacted AMA headquarters investigating this possibility. HCFA staff anticipate that the first Request for Proposal for contract bidding will be released by mid-July 1983. HCFA expects to fully implement the program during fiscal year 1984.

Current AMA policy, adopted by the House at the 1980 Interim Meeting, calls for the Association to "continue professionally directed efforts to ensure that care provided to patients is of high quality, appropriate duration and is rendered in an appropriate setting at a reasonable cost and to encourage the elimination of all government-directed peer review programs including PSRO." At the 1981 Annual Meeting, the House further defined Association policy in support of professionally directed peer review programs by adopting Substitute Resolution 4, calling for the AMA to take a leadership role in collaboration with all units of the federation in developing and promoting effective means of physician assessment of the quality of medical care. Furthermore, the House reiterated that physicians should maintain control and direction over peer review, which should be done only by physician-sponsored organizations, regardless of the funding source.

In an effort to assist physicians in fulfilling their responsibility for peer review, the Council subsequently developed "Principles for Voluntary Medical Peer Review" (I-81) and a report describing alternative strategies or approaches for "Implementation of Voluntary Medical Peer Review" (A-82), both adopted by the House. In adopting the latter report, the House concurred with the Council that "individual peer review organization contracts with government agencies for conducting peer review programs do not constitute government-directed peer review," noting that, "such contracts would be the product of negotiation between the government agency and a private review organization, and if the terms are not agreeable or do require government direction, the peer review organization would simply not sign the contract."

As enacted, the UQCPRO legislation contains both elements which are opposed by present AMA policy, and elements which are consistent with such policy. On April 1, 1982, AMA testimony before the Senate Subcommittee on Health expressed concern with those elements inconsistent with present policy. These include the fact that the secretary is *required* to form contracts with UQCPROs, and can contract with health insurers to perform such review if he is unable to contract with physician groups for this purpose, thus creating a potential for the program to focus on cost over quality. In addition, the statute authorizes (although not requiring) review of virtually every covered service under Medicare, including the provision of medical care in physicians' offices.

On the other hand, the new program—in contrast to PSRO—allows medical associations to contract for performing the peer review function, and also requires the secretary to give priority to physician groups in contracting as the UQCPRO. This would appear to give the edge to interested state medical associations, given other provisions of the law. It also specifies that the nature, functions, objectives and norms for review are to be individually *negotiated*, rather than specified nationally, and that both parties have the right to terminate or not enter a contract for cause. This is consistent with present Association policy which recognizes that the federal government will almost certainly continue to be one significant source of financing for peer review activity in view of its entitlement program obligations, and that individual peer review organization contracts with governmental agencies do not constitute government directed review.

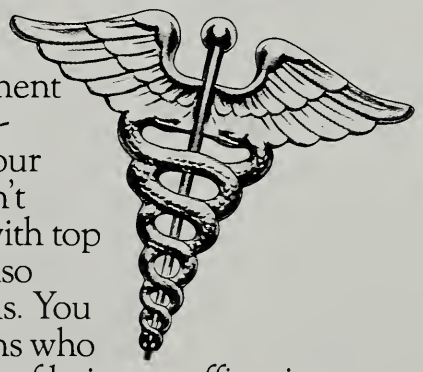
The new legislation also exempts UQCPROs from the Freedom of Information Act, helping to maintain the confidentiality of medical information, and calls for a more manageable number of peer review organizations (one for each state except under certain circumstances).

Recommendations

Based on the above considerations, the Council on Medical Service is persuaded that, on balance, physicians (as well as their patients) will gain more from efforts to improve this program and build on opportunities for physician leadership and direction, than they will from immediate efforts to repeal the legislation.

Accordingly, the Council on Medical Service recommends that the AMA (1) support and work to strengthen those elements of the UQCPRO program which are consistent with present Association policy on medical peer review; (2) seek modification through regulation and amendment of those mandatory elements which are not consistent with existing policy; and (3) expand assistance to physicians and medical societies in assuming a leadership role in medical peer review, and in negotiating contracts under the UQCPRO program which would retain professional direction and control with appropriate emphasis on quality rather than cost. (4) When and if the above efforts are considered unsuccessful, we again seek repeal of the Durenberger bill and report back at the 1983 Annual Meeting.

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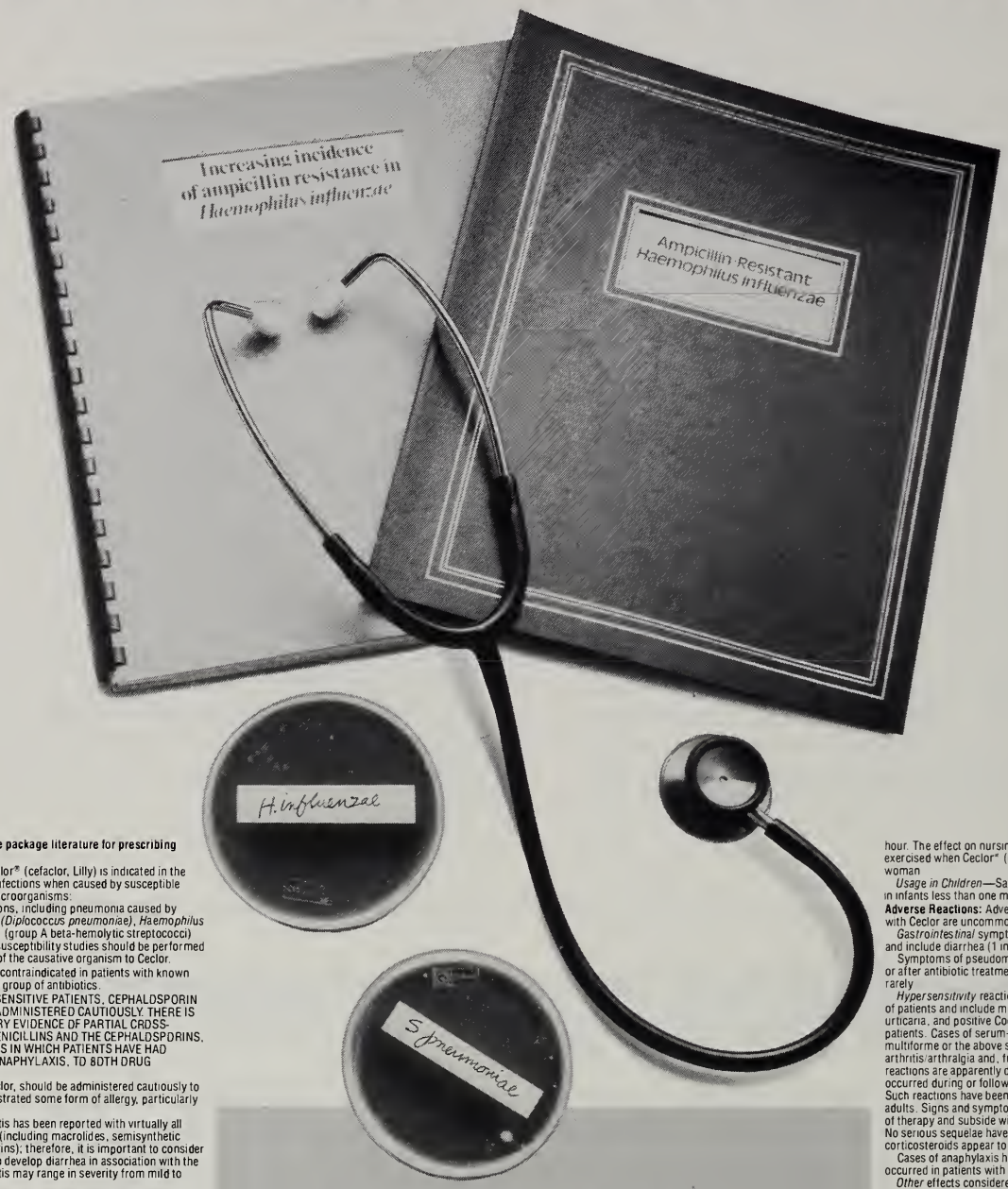


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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor® (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGDT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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Prospective Reimbursement for Hospitals

In recent sessions of the House of Delegates, the Board of Trustees has presented informational reports concerning proposed, pending, and enacted legislative initiatives which in one fashion or another seek to restrain the growth of health care expenditures. On Sept. 3, 1982, President Reagan signed into law PL 97-248, the Tax Equity and Fiscal Responsibility Act of 1982; in addition to changes in the tax laws, this Act makes important modifications in the way in which hospitals will be paid for Medicare inpatient services.

Not only does the law require the secretary of Health and Human Services (HHS) to develop plans for prospective payment of hospitals and skilled nursing facilities by January 1983, but a new payment approach for hospitals went into effect Oct. 1, 1982, which incorporates a number of prospective payment features.

While these amendments deal only with payment for hospital inpatient care, they will have a significant impact on the practice of medicine. For this reason, as well as the fact that any efforts to change hospital care methodologies are of importance to the medical profession, the Board believes available information should be presented to the House at this time.

This report, prepared during the first month the new amendments took effect, is based primarily on the language of the law and interim regulations. If additional significant information becomes available by the time of the Interim Meeting, a further report will be provided. Otherwise, the Board expects to present a status report at the 1983 Annual Meeting.

Prospective Reimbursement

"Prospective Reimbursement" has become a generic name for a number of different approaches to payment for services which have in common the determination of the amount that will be paid before services are provided. It is in direct contrast to the method used in Medicare prior to implementation of PL 97-248—which generally paid hospitals on a retrospective basis, calculating the cost of care after the care was provided.

A prospective rate might be established as a per diem for hospital stay, a payment per admission or discharge, per type of case, per unit of service, or, in an extreme application of the concept, the total budget for a hospital for a year might be established in advance. Capitation payments, which reimburse a health care entity for all care for a given enrollee for a set period of time, are a type of prospective payment as are, to a lesser degree, indemnity payments, which pay a fixed rate for a service but represent only part of the charge for the service.

Most existing prospective payment systems in this country are based on state rate-setting laws, which establish a rate of payment for a given hospital based on review of the hospital budget by a state commission, and which require third-party payors in the state to pay the fixed amount. New Jersey and Maryland use this approach, and have had the most experience with this type of program.

PL 97-248 requires the development of prospective reimbursement proposals for Medicare by HHS by the beginning of 1983; the details of the HHS proposal are still fluid, and the Board does not believe it will be productive to offer the House conjectures as to what it may involve. However, regulations published Sept. 30, 1982, to implement the Oct. 1 changes give a clear prognosis of the degree of added complexity and change which may result.

October 1 Changes

PL 97-248 amendments make three drastic changes in the way Medicare pays hospitals:

- Medicare will pay hospitals on an average cost per case basis, with adjustments for each hospital's case mix, size of hospital, geographic location, and involvement in teaching programs;
- A target rate of increase in costs is to be set for hospitals, distinct from the cost per case payment, with hospitals retaining part of the savings if their increase is below the target;
- Authorization to the secretary to recognize rates set by state control systems which apply to most of the state's hospitals and payors and which do not increase Medicare expenditures beyond the level they would otherwise reach.

Target Rate of Increase

Maximum allowable operating costs will be established for hospitals, based on the operating cost plus an annual "target rate of increase." The target rate provides both negative and positive incentives to a hospital to keep operating costs down: if it exceeds the target rate, only 25% of the excess costs are reimbursed for the first two years, and no excess is reimbursed the third year—while those staying below the target rate keep 50% of the savings, up to 5% of the target rate itself. (Example: If the target rate is set at $2,000 per case, the hospital keeps half of any savings up to a maximum of $100.) This target rate is secondary to any cost per case maximum set under the other section of the law, so that the hospital will receive no incentive payment if it exceeds the other established maximum, referred to as "Section 223" and described in this report under "Cost Per Case Payment."

This is AMA Board of Trustees Report F, submitted to the House of Delegates at its Interim Meeting in December, 1982. Past House Action: A-80:178-181; A-78:36.

State Rate Setting

The secretary of HHS is authorized (but not required) to recognize for Medicare payment hospital rates set by state hospital reimbursement control systems which are developed at the request of the state's governor. Any such state plan must cover at least 75% of hospital inpatient revenues in the state and Medicaid inpatient care—substantially all non-federal hospital inpatient care. Before authorizing recognition, the secretary must be satisfied that the plan will not increase Medicare expenditures over the next three years above the amount which would be paid out otherwise.

The Board cannot fully assess the impact of this provision. However, it seems reasonable to assume that any such state program would tend to use the Medicare cost-per-case methodology as a pattern, to assure Medicare acceptance of the state control program.

Cost Per Case Payment*

The change of most immediate significance is the requirement for a cost per case payment mechanism for Medicare inpatients. Most Medicare hospitalizations will be covered, but some hospitals are exempt from the new methods, at least for the time being: rural hospitals of under 50 beds if they had less than 50 beds at the time the law was enacted; children's hospitals; and long-term-care hospitals. Other hospitals are eligible for special exceptions—for example, hospitals which are the sole community source of care for Medicare patients.

In general, however, each hospital treating Medicare patients will be paid a fixed amount per Medicare patient discharged,** with the payment based on a formula which takes into account:

- hospital bed-size and urban or rural location;
- a hospital-specific case-mix index;
- a "market-basket index" which identifies the prices of goods and services used by hospitals;
- a wage index which differentiates labor-related costs by the area in which a hospital is located;
- an adjustment factor for teaching hospitals based on the ratio of interns and residents to hospital bed-size;
- a "hold-harmless" provision which guarantees hospitals will not receive less per case during the first reporting period after Oct. 1 than during the period immediately before.

This formula is presented as an expansion of what has come to be known as the "Section 223 limitation" (so called because it was enacted as Section 223 of PL 92-603, the 1972 Social Security Amendments). Section 223 authorized HHS to set prospective limits on certain hospital costs reimbursed under Medicare; HHS has applied this authority to set limits on routine inpatient operating per diem costs (room and board and routine nursing costs) by size and location of hospital.

The 1982 formula, in contrast, covers *all* operating costs of providing inpatient care, including ancillary service and special care unit operating costs. It does not cover outpatient service costs, capital-related costs such as depreciation and interest, malpractice insurance costs or teaching costs not directly related to patient care; these will continue to be paid separately through cost reporting.

The Board notes that HHS does take into consideration and makes provision for increased costs on the operating side which result from teaching programs. It has been a frequently expressed concern of medical educators that efforts to standardize hospital payment may penalize teaching hospitals, whose very nature often requires more intensive treatment than hospitals without teaching programs.

During the first year of implementation, the limit on cost per case for a hospital will be set at 120% of the mean (average) for its group (case-mix, size, location); for reporting periods beginning on or after Oct. 1, 1983 and 1984 it will be 115% and 110%, respectively.

Case-Mix Index. Aside from a hospital's size and location, the most important factor in determining its payment per case will be its case-mix index—a percentage which is intended to measure the aggregate complexity of care rendered Medicare patients by that hospital in comparison with the national Medicare patient load, and which is intended to indicate the costliness of that hospital's mix of cases compared with the national Medicare mix.

As the basis for classifying cases, HHS has chosen the Diagnosis Related Groups (DRG) system developed at Yale. (This system has been described to the House in some detail in Council on Medical Service Report N, A-80.) Using data from records of patients discharged during the last half of 1979, the Yale researchers classified the records into 23 Major Diagnostic Categories (MDC) and subdivided these categories into medically similar groups (DRG) expected to be distinct in length of stay. Medicare began with a subset of 467 Yale DRGs, eliminating 102 because they contained no Medicare cases or too few to provide reliable cost weighting; 18 were regrouped into 9 where clinical information needed for the more specific classification was unavailable in HCFA files of Medicare discharge records. The 356 DRGs remaining were used to construct Medicare's case-mix index.

Medicare data reporting systems include detailed hospital bills for each Medicare patient discharged, and more detailed information (discharge diagnosis, any surgical procedures performed, and charges for ancillary services) for a random sample of discharged patients. For 1980, the government's file for the latter group contained approximately 2 million cases, roughly 20% of the total.

These diagnoses are coded according to the ICD-9-CM system, the International Classification of Diseases. This information, together with the annual cost reports made by hospitals to Medicare intermediaries, was used to construct a "cost weight" for each of the 356 Medicare DRGs. Each hospital's individual case-mix index was determined by multiplying the proportion of the hospital's Medicare patient-load in each DRG by the cost-weight for that DRG and adding up the products for that hospital's expected cost per case.

*The explanation of the HHS methodology is based on regulations and notices published in the *Federal Register*, Sept. 30, 1982, pp 43282-43293, 43296-43313.

**The law does not specify admission or discharge as defining "per case." HHS has chosen "per discharge," which will be used interchangeably with "per case" in describing this methodology.

This amount is divided by the expected average cost per case of Medicare patients for all hospitals, to obtain the individual hospital's case-mix index.

The case-mix index, multiplied by the wage index and non-labor ("market basket") components of hospital costs, modified by the education cost adjustment if applicable, will be used by the intermediary to calculate the maximum Medicare payment per discharge.

Since, at the time this report was prepared the new approach was in the preliminary stages, actual impact cannot be accurately predicted. However, the Board feels it is important to note that, although the specific methodology including use of DRG has been developed by HHS's Health Care Financing Administration (HCFA), these major changes in hospital payment, including payment for overall cost per case, specifications as to which costs shall be included, and the use of case-mix to adjust hospital cost per case, are required by PL 97-248.

Commentary

The American Medical Association has recognized the *potential* of prospective reimbursement as a means of making institutional care more cost-effective. In its action on Recommendation 12 of the Commission on the Cost of Medical Care, calling for exploration of this method, this House stated: "The AMA approves in principle Recommendation No. 12. Moreover, the AMA believes that payment to institutions on the basis of prospectively determined rates, and other payment systems which also create incentives for facilities to be more cost conscious, should be explored. However, such systems should be implemented only if they prove to be effective." (BOT A, A-78)

Similarly, in the previously cited report on DRG systems, the Council on Medical Service recommended, and this House agreed, that "more research and demonstration applications of different case-mix measures, including the DRG system, should be conducted before an attempt is made to utilize any such system as the basis for reimbursement of hospitals." (CMS N, A-80)

In regard to prospective reimbursement of hospitals, although a number of individual states have begun testing this approach in recent years (including Florida, Kentucky, Maryland, Wisconsin, Alabama, Mississippi, Missouri, Massachusetts, New York, New Jersey), many of these systems have only a year's experience or less, and some apply only to Medicaid hospital expenditures.

The DRG case-mix approach has had even less testing. It has been used to control payment by all third-parties, including Medicare, in Maryland and New Jersey; an evaluation project by the Health Research and Educational Trust of New Jersey, an affiliate of the New Jersey Hospital Association, begun in 1980, expects to issue its final report in 1983.

There appears to be no consensus as to the full impact either of prospective hospital rate setting or of use of DRG to establish cost per case. There have been concerns voiced regarding both as to whether they are truly cost-effective or may eventually damage the hospital system of this nation, by reducing hospital income below the break-even point, and as to whether they will in fact force hospitals to limit admissions for some types of care in order to stay within their case-mix boundaries.

In this latter connection, it is worth noting that, while HCFA implementation of PL 97-248 permits adjustments and waivers in cases where hospitals can demonstrate the need for them, the burden of proof rests with the individual hospital—which may be especially difficult in terms of the case-mix index. If a hospital, for example, believes that HCFA has assigned it an incorrect weight it must submit a record of all its Medicare discharges, coded by the ICD-9-CM coding system and available on magnetic tape, for the year 1980 (the year on which Medicare's weighting is based).

Similarly, HCFA argues that "hospitals tend to treat similar types of patients from one period to the next" so that its case-mix index can be applied prospectively. However, if a change in a hospital's case-mix occurs as the result of a specific change in organization, range of services, medical specialty, or another particular and identifiable event—examples given are addition of a regional trauma center and merger of two facilities with different levels of specialization—the case-mix can be recomputed.

On July 16 of this year, the Association submitted to the House Committee on Energy and Commerce's Subcommittee on Health and the Environment a statement regarding a number of proposed budget cuts and changes in Medicare. In that testimony, the Association recommended against expansion of the Section 223 limits to include ancillary costs because of the potential impact on access to care and on the availability of necessary ancillary services.

Nonetheless, this change is now part of the law. The Board believes that the House was correct in recommending more testing and evaluation of both prospective reimbursement and DRG before mandating either for all hospitals. A system of this complexity, which establishes for a hospital a maximum payment per case for all its Medicare patients, is likely to have a significant impact on the type of care that hospital offers and on its admitting patterns. The Board believes that more experiment or pilot program data would have been and would still be useful.

However, PL 97-248 is now the law of the land. It is unlikely that major impacts will be felt in 1983; 120% of the mean as a ceiling on cost per case will probably affect few hospitals—only those whose costs are exceptionally high. However, the 1984 limit of 115% of the mean and 1985's 110% of the mean will tend to reduce cost flexibility, even with the built-in increases for wage and "market-basket" inflation. Nonetheless, hospitals with capable management will be seeking *now* to reduce length of stay and ancillary services, and medical staff will have to look at these matters with even more care than has resulted from recent voluntary emphasis on cost-effectiveness.

This report is presented for the information of the House. The Board will continue to report on this change as information becomes available, and urges state medical associations and specialty societies to study its impact on the patients of their respective memberships as to care provided in affected hospitals. The Board will appreciate receiving this information for use in future reports.

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The Importance of the Gynecologic Examination In the Newborn

DAVID MURAM, M.D., and BERTRAM H. BUXTON, M.D.

Many congenital defects of the female genital tract are not recognized until puberty, when they may become medical and/or emotional emergencies, but when a baby is afflicted with congenital adrenal hyperplasia, genital ambiguity will alert the physician to the diagnosis, and potentially lethal complications can be prevented.[1-3]

Both parents and physicians have adopted an attitude of avoiding contact with the newborn's genitalia. Although health care emphasizes the role of preventive medicine, very little attention has been given to the reproductive system in the neonatal period. The gynecologic examination of the newborn is frequently limited to hasty inspection of the external genitalia. Since most abnormalities found in the neonatal period are limited to the external genitalia, most of these will be apparent at birth. Some need immediate correction, while some are appropriately corrected later. Even if treatment can be delayed, early detection allows the physician to plan further therapy intelligently. Moreover, some conditions are hereditary, and early diagnosis allows proper counselling and protection of the remaining family members.

Examination of the newborn includes inspection and palpation of all the structures. Are all structures present and in their proper position? Do they appear normal? Is the genital tract patent? A bimanual abdominal-pelvic examination is the next step. Under maternal hormonal influence the uterus attains its largest size at birth and diminishes thereafter until puberty. Therefore, palpation of the uterus is most easily accomplished at this time.[1]

Apart from a small central mass of tissue that probably represents the cervix and not the corpus, the rectal examination usually reveals no other palpable masses. A negative examination, however, is just as important as a positive one. Pelvic masses in this age group require careful evaluation to rule out neoplasms. Patency of the anal canal is established at the same time.

Even though in most instances the obstetrician/gynecologist is capable of diagnosing the common disorders of the genital tract in a newborn infant, one should remember that gynecologic abnormalities in infants are not adult diseases in small organs. The reproductive tract in this age group differs in structure and function from the genital organs of the adult female. Some of the congenital malformations are quite rare and their management may require specialized equipment.

Recognizing the need of specialized expertise and care for these infants, many departments of obstetrics and gynecology have established pediatric consultation services, which will be able to render specialized consultation and care. This can be done, however, only if congenital defects of the female genitalia are uncovered by a careful gynecologic assessment at birth, the most fertile time for an early diagnosis.

From the Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis.

Reprint requests to Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, 800 Madison Ave., Memphis, TN 38163 (Dr. Muram).

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EKG of the Month

W. BARTON CAMPBELL, M.D.

This 55-year-old man was admitted to St. Thomas Hospital for coronary arterial bypass grafting. Over the 14 months preceding admission he had angina pectoris with increasing frequency and severity. Admission chest film disclosed hyperexpanded lung fields with flattened hemidiaphragms suggesting chronic obstructive pulmonary disease. Cardiac catheterization disclosed normal left ventricular contractility. Severe focal stenoses were noted in the right anterior descending and obtuse marginal coronary arteries. He underwent saphenous vein grafting to the right and obtuse marginal coronary arteries and an internal mammary graft was placed in the anterior descending coronary artery. Postoperatively he was atrially paced for 48 hours. On the third postoperative day, due to a brief episode of supraventricular tachycardia, hypotension, and diaphoresis, he was started on digoxin and kept on nifedipine 10 mg orally twice a day. His postoperative course was uncomplicated and he was transferred to the step-down unit. On the fifth postoperative day he complained of abrupt onset of dyspnea and palpitations following pulmonary therapy with positive pressure breathing and bronchodilators. His electrolytes were normal, his hematocrit 28%, and blood pressure 84/62 mm Hg. He had a pH of 7.5 with a P_{O_2} of 62 and a P_{CO_2} of 27 torr. An electrocardiogram was obtained (Fig. 1).

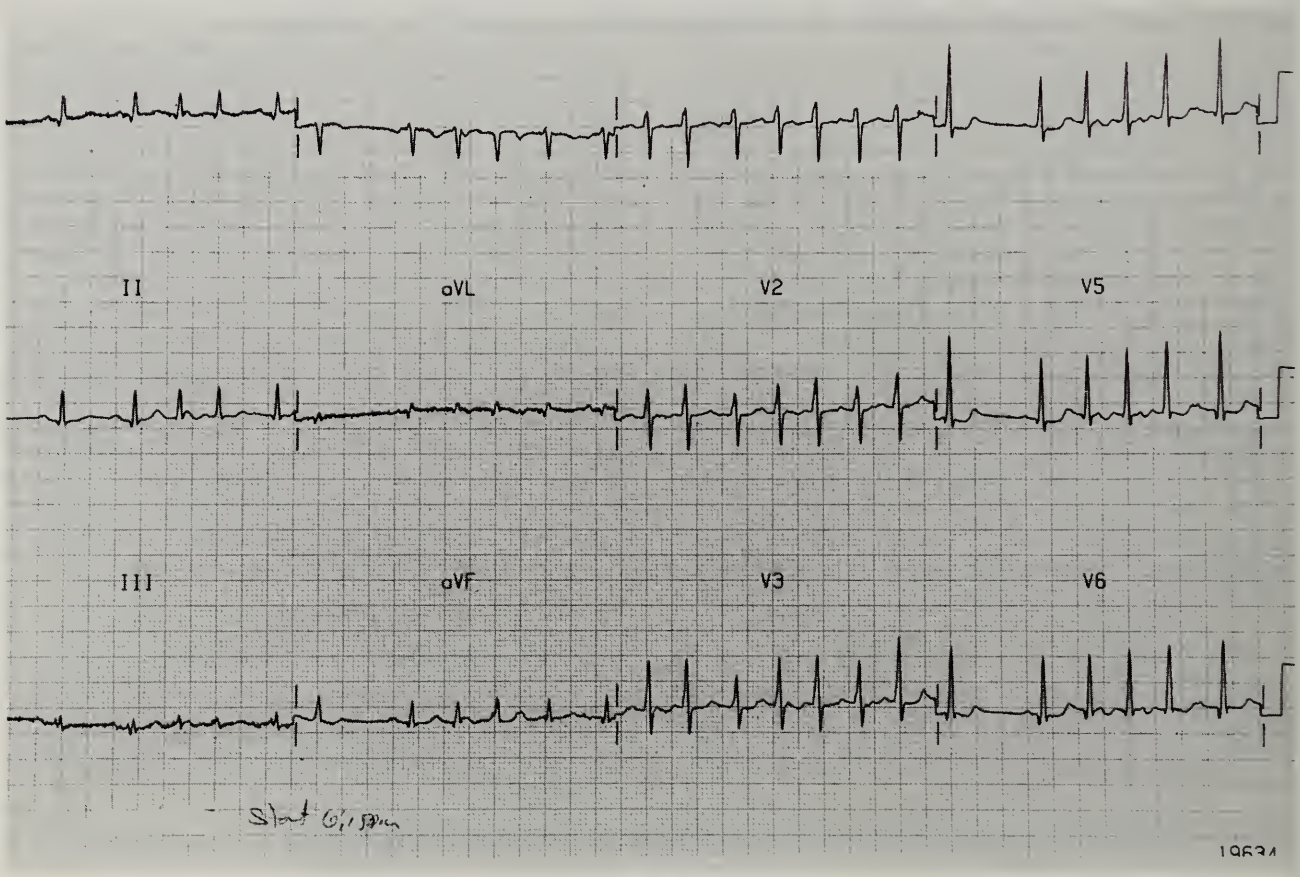


Figure 1

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

Discussion

Diminutive Q waves noted in leads I, aVL and the lateral precordial leads are of insufficient duration to be diagnostic of infarction. There is questionable J point elevation in I and aVL, and irregularities in the baseline (noted especially in leads I, III and aVL) suggest increased skeletal muscle activity. The QRS morphology is normal.

The striking finding is an irregularly irregular rhythm with a heart rate averaging 145 beats per minute. The arrhythmia is not due to atrial fibrillation, as P waves are well shown on the tracing. There is prominent variation in the morphology of the P waves and the PR interval varies markedly. Variability in the shape of the T waves suggests the presence of P waves causing intermittent deformation. The irregular, patternless tachycardia with varying PR intervals and variable P wave configuration is pathognomonic of multifocal atrial tachycardia (also called chaotic atrial tachycardia).

It is important not to confuse this irregularly irregular rhythm with atrial fibrillation. Although multifocal atrial tachycardia may occasionally become atrial fibrillation or flutter, it usually does not respond to the administration of digitalis (which would be given to a patient with atrial fibrillation to slow the rate).[1] It has been emphasized that digitalis given in high doses to patients with multifocal atrial tachycardia may result in more severe ectopy.[2]

This arrhythmia is commonly seen in patients with chronic obstructive lung disease. It appears to be made worse by medication such as catecholamines and theophylline preparations.[2] It may be prolonged or of brief duration,[1] and is believed to be due to enhanced atrial automaticity resulting in a marked increase in atrial ectopy. It has been pointed out, however, that multiform conduction from a uniform source may be a mechanism of production of this dysrhythmia.[3]

The surgical housestaff thought this patient had atrial fibrillation. He was placed on oxygen and given a low dose of verapamil (2.5 mg) intravenously. His symptoms improved and he was found to be in sinus rhythm a few hours later.

DIAGNOSIS: Multifocal atrial tachycardia (chaotic atrial tachycardia).

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PENINSULA HOSPITAL

Louisville, Tennessee

Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

Peninsula is fully accredited by the Joint Commission on Accreditation of Hospitals and is a member of the American Hospital Association, Tennessee Hospital Association, Federation of American Hospitals and the National Association of Private Psychiatric Hospitals.

The Professional Staff is composed of psychiatrists, licensed clinical psychologists, psychiatric social workers, psychiatric registered nurses, adjunctive therapists, and mental health workers. This experienced team, together with ancillary hospital workers, provides a dynamic treatment program designed for each individual to bring about change and emotional growth in the patient.

Peninsula provides a special treatment program for alcoholic and drug abuse patients. Another program is designed specifically for adolescents. The adolescent treatment program includes a fully staffed school program. An individual education plan is designed for each adolescent.

A variety of therapeutic programs are scheduled for each patient's day. These include intensive individual psychotherapy, group psychotherapy, community meetings with staff and many collateral activities.

Patients may be referred to Peninsula by their own physician, former patients, or may be self-referred. Voluntary patients as well as those who are directed to the hospital by a court are accepted for treatment. It is desirable for the hospital to receive information from physicians, therapists, family and friends who know the patient. Treatment is individualized based upon the needs of the patient.

Appointments for admission can be made by calling the hospital directly. The phone numbers are:

Knoxville	573-7913
Maryville	983-8216

Disease Surveillance at the World's Fair In Knoxville, Tennessee

ANITA BOOTH, R.N.

The World's Fair held in Knoxville, Tenn., May 1-Oct. 31, 1982 was expected to bring more than 10 million people to the area. Therefore, among the myriad plans in anticipation of problems from this influx, a high priority was given to disease surveillance. By February 1982, the Division of Communicable Disease Control—with Drs. Robert Hutcheson, Jr., Tracy Gustafson, and Mary Duffy, along with Anita Booth, Steve Fricker and Larry Bowles—had prepared a computerized surveillance form that could be completed daily by the local county surveillance officers.

It was planned to utilize the resources of the hospital emergency rooms in 23 hospitals in Knoxville and the surrounding counties, which would receive the potential increase in visitors from all parts of the United States and the world. The major conditions considered as possible health hazards or sources of communicable disease included animal bites, rash illnesses, heat exhaustion, heat stroke, meningitis, emergency room deaths, and gastrointestinal syndromes (which included nausea, vomiting, and diarrhea), and any unusual clusters of diseases.

The first objective was to identify the presence of acute preventable diseases, and to determine whether or not they were related to an increase in visitors or Fair attendance. Receiving the information promptly would make it possible to intervene. The second objective was to determine the absence of acute preventable diseases in order to counteract rumors. The third objective was to assay the effects on service delivery caused by the increase in visitors. Knowledge of service overload would make it possible to intervene.

Early in February, county surveillance officers assigned in each county of the East Tennessee region and Knox County were given a basic training course in completion of the surveillance form for their assigned hospitals. A letter was sent by the Commissioner of Public Health to the hospital administrators in East Tennessee and an appointment was made by the regional director, Larry Bowles, and Dr. Mary C. Duffy, the health officer for Knox County, for the basic contact of the county surveillance officers. After a visit to each hospital to meet the hospital administrators and emergency room personnel, a detailed explanation was given about the surveillance plan. This first concept of emergency room surveillance to be done in relationship to any World's Fair was well received. The hospital personnel were receptive to the idea of health department personnel being visible five days a week, as well as being on call to investigate any potential health hazards or outbreaks in each county.

In March, the county surveillance officers visited their assigned hospitals at least ten times. After completing the surveillance forms, they called the Division of Communicable Disease Control for assistance and clarification to be certain of the accuracy and interpretation of conditions and diagnoses from the emergency room log books. The county surveillance officers began visiting their assigned hospitals five days a week during April to collect the baseline data. These reports were sent weekly to Division of Communicable Disease, reviewed also by the Infection Control Consultant, and entered into the WIC computer. These reports were processed within hours by the main frame computer in Information Systems Services Division (ISSD) and mailed weekly to the hospitals, Health Department Regional Office and county surveillance officers.

The weekly process continued in 17 East Tennessee hospitals through November and until

From the Tennessee Department of Public Health, R. S. Gass State Office Bldg., Ben Allen Road, Nashville, TN 37216.

Nov. 15, 1982 in the six Knox County hospitals. The results by objectives follow.

Information About Acute Preventable Disease (Table 1): Seven *probable* foodborne outbreaks were acquired in Tennessee outside the Fair site. There was a *definite* waterborne outbreak about 50 miles away from the Fair site. There were two probable foodborne outbreaks in visitors who were symptomatic in Tennessee but acquired their illness in another state.

Although the surveillance system discovered visitor related heat illnesses and chest pain, the records maintained at the Fair site revealed many more cases. The total from both sources was 1,007 heat related illnesses and 187 cases of chest pain. Although it was anticipated that the hottest days would precipitate the highest number of illnesses, there was instead a direct correlation between heat related illnesses and the number of people attending the Fair. Even when the temperature was mild, the number of heat related illnesses increased if attendance was high. This suggested that access to air conditioned buildings, determined by the number of people present, influenced the onset of heat illness.

There were 658 animal bites, many of which required public health follow-up.

Information About the Absence of Acute Preventable Diseases: There were 1,944 cases of rash illness reported, only four of which were suspected measles. A careful public health investigation revealed only one case of measles diagnosed, despite the large influx of visitors.

Although the surveillance system itself would not have detected a change in incidence of venereal diseases, we had the benefit of a different surveillance system maintained by the Venereal Disease Division. There was no change in gonorrhea and syphilis reports that could be attributed to the large number of visitors (Table 2).

TABLE 1

WORLD'S FAIR SURVEILLANCE
TOTALS FOR KNOX COUNTY—EAST TENNESSEE HOSPITALS
May 1, 1982 Through October 31, 1982

Total World's Fair attendance		11,256,000
Total number of emergency room visits for East Tennessee Hospitals and Knox County		168,898
Total number of admissions from emergency room		27,067
Total number of G.I. syndrome		5,690
Total number of unusual clusters of disease		852
Total number of rash illnesses		1,944
Total heat related illness		68
Total number of animal bites		658
Dogs	512	
Cats	50	
Bats	2	
Other	94	

TABLE 2

VENEREAL DISEASES—KNOX COUNTY

	No. of Cases
Gonorrhea	
April through September 1980	1,391
April through September 1981	1,287
April through September 1982	1,362
Syphilis	
April through September 1980	20
April through September 1981	24
April through September 1982	22

Although over 100 clusters of diseases with similar symptoms, time, and place were recorded, only the foodborne and waterborne diseases were of public health importance.

The Effects on Service Delivery Caused by the Increase in Visitors: It was estimated that at the time the Fair was in session, the increase of emergency room visits was less than 10%.

In addition to meeting our three objectives, we learned from the surveillance officers four beneficial side effects on the surveillance program.

- Communicable disease reports from hospitals to health departments were faster and more nearly accurate than before.
- The general communications between the hospitals and health departments improved, apparently a result of many personal contacts.
- Some hospitals improved their recordkeeping, in order to retrieve data more efficiently.
- The health departments were able to use the quick reports to intervene (while there was still time to be effective) in investigation of communicable diseases.

Two examples of the useful effects of the program are, first, about half the surveillance officers reported that they were trusted enough by the emergency room personnel to be called upon for help during a patient care emergency; second, the program was so well recognized in one county that a motel manager called the county surveillance officer to report a bus load of people that had arrived with foodborne diseases.

It was concluded that East Tennessee remained a safe place despite having 11,256,000 visitors at the Fair.

Candidates for nutritional therapy...

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.[1]

25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgical patients. Nutritional status can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorption of food.[3]



Before prescribing, please consult complete product information, a summary of which follows:
Each Berocca® Plus tablet contains 5000 IU vitamin A (as vitamin A acetate), 30 IU vitamin E (as *dl*-alpha tocopheryl acetate), 500 mg vitamin C (ascorbic acid), 20 mg vitamin B_1 (as thiamine mononitrate), 20 mg vitamin B_2 (riboflavin), 100 mg niacin (as niacinamide), 25 mg vitamin B_6 (as pyridoxine HCl), 0.15 mg biotin, 25 mg pantothenic acid (as calcium pantothenate), 0.8 mg folic acid, 50 mcg vitamin B_{12} (cyanocobalamin), 27 mg iron (as ferrous fumarate), 0.1 mg chromium (as chromium nitrate), 50 mg magnesium (as magnesium oxide), 5 mg manganese (as manganese dioxide), 3 mg copper (as cupric oxide), 22.5 mg zinc (as zinc oxide).

Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
Contraindications: Hypersensitivity to any component.
Warnings: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
Precautions: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, supplementation with vitamin D and calcium may be required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions have been reported with specific vitamins and

president's page



George W. Holcomb, Jr.

The Bottom Line Is . . .

In a few days the new officers and Board members of the Tennessee Medical Association will be installed. Your elected House of Delegates will be considering many important issues which affect physicians and citizens across the state. Undoubtedly, these deliberations will be thoughtful and yet they must be reflective of our awareness of the economic factors interacting with medicine today. The heart of the matter throughout these discussions should be maintenance of the highest quality of medical care for our patients. The bottom line is the blunt fact that without a reduction in cost of medical service, private practice as we have known it, with the freedom to select physicians and hospitals, will disappear. Representatives of industry already have stated emphatically that no longer will they be able to afford the present 15% annual increase in cost of medical insurance. While physicians are not wholly responsible for this dilemma, we must accept that portion for which we are accountable.

I commend you, the physicians of Tennessee. You have understood the plight of your neighbors during the most critical economic conditions in recent history. Some of you have organized outpatient clinics for indigents and the unemployed in your communities. I know that many have arranged extended payment plans for your patients in hardship cases and you have continued to provide care long after financial resources were exhausted. In spite of stinging criticisms of our profession, physicians have continued to support the Medicaid program with its tremendous disruptions during the past year. Many took the time to express concern about the public health program and its future direction. Government officials were surprised at the broad support the former medical leadership of this department has received. TMA committee chairmen and members have made very significant contributions to the improvement of health care in this state.

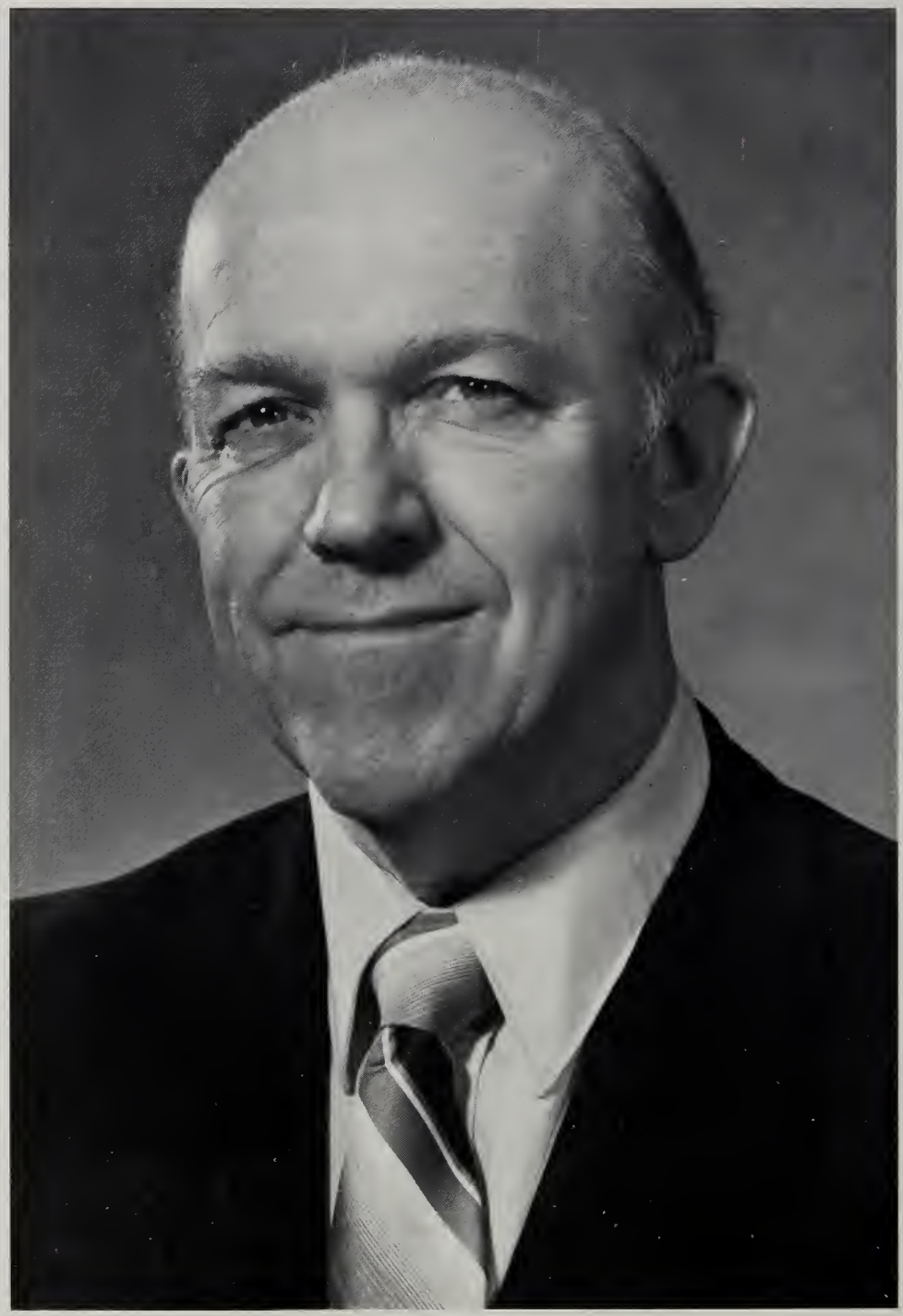
As members of organized medicine, we must continue to monitor medical issues at the federal, state and local levels to be certain there is physician participation in all policy decisions related to medical care. The existing structure of the AMA, TMA and county medical society federation offers us the best method to find solutions to complex problems in a democratic manner. Working within this framework, each of us has the opportunity and the responsibility to articulate ideas and influence the decision-making process. Choosing to remain outside this mechanism means the voice of medicine will be overwhelmed by the combined efforts of business, government, labor, and the increasing numbers of nonmedical health providers.

No profession subject to government rules and regulations can ignore the impact of any legislation affecting it. Many negative statements have been made about PACs, but it is certainly one way that small political donations can be combined to emphasize more effectively the contributor's point of view. IMPACT and AMPAC funds are given to candidates of both political parties in the hope that medicine at least will get a hearing in the political arena. Presently, only a small minority is carrying this financial burden for the rest of us. Physicians in Tennessee should consider carefully what a great difference it will make if each of us contributes to this effort.

The year has passed quickly. It has been a distinct privilege and a real pleasure for me to serve as your President. My job was made easier because your support was never lacking. My life has been truly enriched by this experience and the opportunity to know better and work with such dedicated physicians and staff members. The presidency soon will pass to Nat E. Hyder, Jr., M.D., from Johnson City. He has participated in TMA affairs for many years and we are fortunate to have someone with his experience serve in this capacity for the coming year.

George Holcomb Jr MD

The New President



NAT E. HYDER, JR., M.D.
JOHNSON CITY

Nat E. Hyder, Jr., M.D.

95th President—Tennessee Medical Association

Our 154-year-old Association is highly honored to again see its membership guided by the professionalism and dedication of an outstanding President. Our 95th President is Nat E. Hyder, Jr., M.D., a Johnson City family practitioner who brings to this office an abiding devotion to service in its most ethically profound sense.

The 54-year-old native of Hampton, Tennessee, received his B.S. degree in 1951 from East Tennessee State University. After receiving his medical degree from the University of Tennessee in 1954, he did an internship at Knoxville General Hospital and a residency in Independence, Louisiana.

He served in the U.S. Army in 1947-48 and currently is a colonel in the U. S. Army Reserve, serving as commander of the 912th Combat Support Hospital in Johnson City.

He practiced medicine in Chatom, Alabama, in 1956-57. From 1958 to 1975, Dr. Hyder was a family practitioner in Erwin, Tennessee. Since 1975, he has practiced medicine in Johnson City.

His service to the medical profession has been extensive. Since 1974, he has been medical consultant on medical management of radioactive accidents for Nuclear Fuels Systems, Inc., Erwin. He was president of the Washington County, Alabama, Medical Society in 1957 and president of the Washington-Carter-Unicoi County Medical Association in Tennessee in 1967.

Dr. Hyder served on the Tennessee Public Health Council in 1971-78. From 1973 to 1978, he was a member of the TMA Board of Trustees, serving as chairman in 1975. He was chairman of the TMA Health Planning Committee in 1979-80, and was a member of the TMA Judicial Council in 1978-82, serving as its chairman in 1980-82.

He served his local Health Systems Agency (HSA) as president in 1980-81. He is a charter diplomate of the American Board of Family Practice. In 1974, he was voted Family Physician of the Year by the Tennessee Academy of Family Physicians and served as its president in 1972. He has been a member of the American Academy of Family Physicians since 1956. Since 1975, he has served on the Board of Directors of the physician-owned State Volunteer Mutual Insurance Company. He was a member of the Board of Directors of the Tennessee Foundation for Medical Care in 1972-77.

Dr. Hyder's civic endeavors have been equally extensive. In 1963, he was president of the Erwin Civitan Club and held offices in the Erwin YMCA, Shrine Club and United Fund. He was a member of the organizing Board of Directors of the First Security Bank of Erwin and is past director of Unaka Financial, Inc., Erwin.

He was Unicoi County coroner in 1968-75, chairman of that county's Health Board in 1970-75, acting director of the Johnson City Family Practice Residency Program in 1981-82 and associate professor in the Department of Family Practice at Quillen-Dishner College of Medicine at East Tennessee State University in 1980.

In 1968, Dr. Hyder went on a 60-day tour as a volunteer physician to Vietnam. He has been a member of the American Medical Association Emergency Medical Services Commission and serves on the AMA/Department of Defense Physician Advisory Panel. In 1983, Dr. Hyder was appointed to the AMA/Health Policy Agenda For The American People and serves on its Work Group for Health Resources.

Dr. Hyder and his wife, the former Elizabeth Inez Hurst of Meridian, Mississippi, were married on June 27, 1952. They have three children, Nat E. Hyder III, 30, Michael A. Hyder, 26, and Gretchen Hyder, 23. Their son, Paul Marshall Hyder, died in 1962 at the age of three years.

The Tennessee Medical Association has maintained a tradition of having truly outstanding presidents throughout its history. That tradition is admirably enhanced in the choice of Nat E. Hyder, Jr., M.D., as the Association's new President.

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APRIL, 1983

editorials

Epidemics Past and Present

Some of the better offerings on television appear on the science series *Nova*, and the other night I watched as superb a program as one could wish on the pursuit—I hesitate to use the word conquest, as that implies victory—of Lassa fever, a virus disease that has plagued Western and Central Africa for over a decade now. Produced, as it seems almost all the better ones are, by the BBC, the program recorded the beginnings, as far as we know them, of the disease, attempts to categorize it and establish its etiology and epidemiology, and finally effectively treat and prevent it.

For every disease medicine has ever successfully dealt with, the successive steps listed above have been followed. It now appears that Lassa fever has likely been knocking around Africa in a population of bush rats, frequently producing sporadic cases and sometimes epidemics of a dread but nameless disease, for at least many decades. Not until it burst upon Western medicine though, in an epidemic involving their own people, did it engage the attention of physicians, microbiologists, and epidemiologists. Many of the early cases were among the staff of a mission hospital, and doctors and nurses were becoming scarce. The first cases were compared, a symptomatology was arrived at, the causative virus was grown, and we had a disease. It was given a name, after the village where it first appeared. Then an epidemiologist from CDC was called in, uncovered the index case, and studied the patients' environs. Just like that. After some false leads, the reservoir was found to be a species of bush rat that is widespread throughout much of Africa. Transmission occurs through exposure to infected blood and urine. No vector has as yet been discovered. Although all very neat, no treatment is as yet available, and prevention depends on controlling the rat population. The case fatality rate is about 40%, but since children are infected and serve as carriers without developing clinical disease, the mortality is probably low, though the attack rate is unknown.

When the disease occurs, physicians diagnose it and, insofar as they are able, treat it. When it came to the epidemiology, though, they had to call in specialists of all sorts with information they did not have. If one of them were to have gone out in the bush in an attempt to run down the origins of Lassa fever, he would likely have had only his own funeral to show for it. A revealing aside was a heated argument between a virologist who had recovered from the disease, and whose serum contained antibodies, and the physician who was treating a terminal case, as to whether it was "safe" to use the antibody-laden serum on his patient, since all sorts of dangers are inherent in plasma transfusions. While his patient lay adying, he was worrying about the risk of hepatitis and its legal implications.

I'm not sure how far I can carry the analogy, but, along with the entire world, we physicians

face a similar epidemic—or potential one—today. We have a potential epidemic with an exceedingly high attack rate, a case fatality rate of anywhere from 30% to 100%, depending on the inoculum, and an excessive mortality to boot. The disease has been categorized, its reservoir and vector are known. It has no treatment, it confers no immunity, and there is no immunologic protection. Its name is radiation sickness (including, for purposes here, blast and burn injuries). Its reservoir is the USA and the USSR primarily, though pockets are springing up all over. Its vector is bipartite, in that the sting has to be activated. We might call the vector the 3M—Missiles and Mad Minds.

As with any epidemic, public education plays an important role, and we doctors carry the chief burden. We know, and must be sure everyone knows, there is no cure and no immunity, and that even if there were doctors around to treat their symptoms, which is unlikely, there would be few hospitals left to treat them in and little to treat them with. We must make sure everyone knows that. *That* is our area of expertise. We can handle that. We *must* handle that. It would not hurt if we could also ferret out the mad minds.

Doctors are great ones for rushing out into the bush looking for they know not what. If you want to know the answer to anything at all, ask a doctor. He may not *know* the answer, but you'll likely get one from him, anyway. (Doctors, I should add, are no different from lawyers, school teachers, judges, preachers, bricklayers, bartenders or barbers—to name only a few—in that, but they should know better, and at any rate, this piece is directed to doctors.) At the moment, our numbers are split along several lines, and the most vocal in each group are strident in giving advice on epidemiology (the nature of the reservoir and control of the vector) and prevention—our *only* out. It so happens, though, that those are political and not medical problems. But do our colleagues still give advice on them? You bet! To whom? Anyone who will listen! They have even organized for speaking their minds.

An example of how our house is divided can be seen in my report from the December meeting of the AMA House of Delegates in this issue and Report I of the Board of Trustees that follows it. The dissension is over the matter of whether or not the inclusion of nuclear war in the things we are sheltering against will somehow generate a sense of security—some notion that just having the *words* there will give people the idea there is some significant protection we can offer. As I said in that piece, doctors are bound to function as doctors as long as they are able to function at all, and use whatever facilities and tools they have. It is a situation such as Winston Churchill described in his World War II "Blood Sweat and Tears" speech, in which he said, "We will fight them on the beaches, we will fight them in the streets. . . ." and so on. Not a very keen way, to the military mind, to fight a war. We fight epidemics the same way—however we can.

Nuclear war is an impending epidemic that is frighteningly like Lassa fever. We have a disease that we have categorized and for which we have a reservoir (and in the case of nuclear war, a vector). There is no treatment. Hope in each situation depends on prevention—on control. In Lassa fever, doctors did not have enough information to track down the reservoir and institute control measures. It required specialists. As control of nuclear arms is political, we doctors do not have the information, either, to institute control measures for preventing nuclear war.

One only fervently hopes and prays somebody does. But then, like cancer and sin, some diseases are not preventable. Perhaps this is one. In any case, as sufferers from many things have learned, including many behind the Iron Curtain, there are worse things than being dead, and the cost of freedom has always been high.

J.B.T.

The Compleat Traveller

Because I grew up in the mountains and vacationed each summer at the beach, there has always been competition between the two for my affection. Mountain lakes and streams, and even rivers, are something special, but so is the seashore. Since I grew up with the wide sandy beaches of Florida, they are what come immediately to my mind with mention of the seashore, but experience has taught me that since the seashore possesses infinite variety, its mention therefore conjures up different images for different people. Except for some of the South Pacific's coral atolls, the glistening white sands of the South Atlantic Coast of the United States are seldom duplicated; on the other hand, to paraphrase the late Will Rogers, I have never met a seashore I didn't like.

It seems life presents one endless series of

choices, and since so many of them are mutually exclusive, I have always operated on the principle that generally speaking one can't have it both ways. It is because California offers a number of rare exceptions that ever since my first visit there about 20 years ago I have returned to spend a few days whenever I can. It is possible there to stand in salt water, or walk along the beach in the shadow of mountain peaks, or hike along mountain trails and watch the breaking surf. Fog is likely to enshroud the West Coast until late in the morning, though, and reaccumulate as the sun recedes, and exhaust fumes frequently make mucous membranes weep, so that paradise often isn't.

Norway's fjords offer the ultimate for such a combination. Here mountains plunge dizzily more than 4,000 feet almost straight downward into the sea (and then keep going invisibly for at least an equal distance). It is a breathtaking experience to cruise along a narrow fjord on a warm summer day, peering down into clear azure water and upward over towering, sometimes snow-capped, craggy peaks into a cerulean sky, possibly flecked with feathery wisps of clouds. Ahead, a faint mist drifts upward, and on either side countless waterfalls pursue a tortuous path as they bound from out-croppings along precipitous green slopes.

Summertime, an' the livin' is easy! Winter, though, paints a different canvas. The snow-capped peaks become snow-drifted mountains, and blizzards constantly threaten the express train that connects Oslo to Bergen as it winds along its mountain path between the Folgefonn on one side and the Hardanger glacier on the other. Furthermore, being close to the Arctic circle, nights are long and daylight scarce. Savoring the long golden summer days as a visitor is pleasant, indeed. Living there carves lines of hardship on worn faces.

On returning from an overnight trip to Leningrad, a companion on our recent tour to Scandinavia sighed, "I never thought I'd say, 'Gee, it's great to be home in good old Helsinki.' " The mountains and the seacoast are grand, indeed, and if they can be had together, so much the better. But touring, as Satchel Paige once observed about the social ramble, ain't restful, and after a couple of weeks or so, even for the compleat traveller the best experience of all is to come home to Middle Tennessee, put his feet up for a few minutes, take a deep breath or two, and get back to work.

J.B.T.

in memoriam

George Turner Binkley, age 70. Died February 17, 1983. Graduate of University of Louisville School of Medicine. Member of Nashville Academy of Medicine.

Stacy Hilburn Kinlaw, Sr., age 59. Died January 31, 1983. Graduate of Medical College of Virginia. Member of Knoxville Academy of Medicine.

Henry Moskowitz, age 76. Died January 19, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY
W. Ken Bell, M.D., Maryville

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY
Joel Reed Bender, M.D., Chattanooga
Dale C. Ingram, M.D., Chattanooga
Joseph A. Motto, M.D., Chattanooga

COFFEE COUNTY MEDICAL SOCIETY
Mittur N. Ramprasad, M.D., Tullahoma

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE
Reggie A. Henderson, M.D., Lexington

CUMBERLAND COUNTY MEDICAL SOCIETY
Thomas Edward Clayton, M.D., Crossville

DeKALB COUNTY MEDICAL SOCIETY
Jules A. Trudel, M.D., Smithville

KNOXVILLE ACADEMY OF MEDICINE
Rajesh G. Bhagat, M.D., Knoxville
Robin L. Bredberg, M.D., Knoxville
C. Sanford Carlson, Jr., M.D., Knoxville
Tommy E. Morgan, M.D., Knoxville
Richard C. Rose, III, M.D., Knoxville

MAURY COUNTY MEDICAL SOCIETY
Sam J. Kuykendall, M.D., Columbia

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY
Steven Lee Atkins, M.D., Memphis
Charles Roland Burnett, M.D., Memphis

David R. Daugherty, M.D., Memphis
James S. Flanary, M.D., Collierville
Michael S. Gelfand, M.D., Memphis
Russell G. Henley, III, M.D., Memphis
Ronald H. Kirkland, M.D., Memphis
Mack A. Land, M.D., Memphis
Earnest B. Payne, Jr., M.D., Memphis
Sylvia S. Strock, M.D., Memphis
Robert A. Walker, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE
George W. Holcomb, III, M.D., Nashville
Richard T. Light, M.D., Nashville
Andrew M. Moore, M.D., Nashville
Elise P. Ollapally, M.D., Nashville
Adedamola Oni, M.D., Nashville
James Culbert West, Jr., M.D., Nashville

NORTHWEST TENNESSEE ACADEMY OF MEDICINE
William D. Duckett, M.D., Union City

PUTNAM COUNTY MEDICAL SOCIETY
R. Glenn Hall, M.D., Cookeville
Larry B. Hudgins, M.D., Cookeville
Gary Edwin Lipscomb, M.D., Cookeville
Jane Thomas Lipscomb, M.D., Cookeville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY
Inder V. Malhotra, M.D., Oak Ridge
Charles Stone Mitchell, M.D., Oak Ridge

SMITH COUNTY MEDICAL SOCIETY
Robert Murray, M.D., Carthage
Lee Thornton Rector, M.D., Carthage

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL ASSOCIATION
David M. Wilson, M.D., Johnson City

personal news

Joe Beals, M.D., has been elected chief of staff at East Tennessee Baptist Hospital in Knoxville. Other officers elected include *Kent Latham, M.D.*, vice chief of staff; and *Joe Luna, M.D.*, secretary.

Mickey McAdoo, M.D., has been elected chief of staff at the City of Milan Hospital. Other officers elected include *Kenneth Warren, M.D.*, vice chief of staff; and *Ron Twilla, M.D.*, secretary.

Halcourt A. Morgan, Jr., M.D., Lewisburg, was recognized for his long and dedicated service by the Marshall County Commission when they renamed the Marshall County Health Department building in his honor.

John L. Sawyers, M.D., has been named chairman of the department of general surgery and director of the section of surgical sciences at Vanderbilt University Medical Center. Sawyers, a member of the Board of Trustees of the Tennessee Medical Association, was named interim chairman of surgery in July 1982 following the retirement of *H. William Scott, Jr., M.D.*, as VUMC's chairman of surgery.

Gerald Sundahl, M.D., has been elected chief of staff at the University of Tennessee Memorial Hospital in Knoxville.

TMA Members Receive AMA Physician's Recognition Award

Thirty-one TMA members qualified for the AMA Physician's Recognition Award during January 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

William D. Black, M.D., Knoxville
Harry E. Burck, Jr., M.D., McMinnville
Jack C. Clark, M.D., Crossville
Randall L. Dabbs, M.D., Louisville
David G. Doane, M.D., Johnson City
Roy C. Ellis, M.D., Harrogate
William D. Falvey, M.D., Memphis
Theodore F. Haase, Jr., M.D., Knoxville
Hathaway K. Harvey, M.D., Chattanooga
Frederick T. Horton, Jr., M.D., Nashville
Charles E. Jordan, III, M.D., Cookeville
Alfred G. Kasselberg, M.D., Nashville
Horace T. Lavely, Jr., M.D., Nashville
John D. Lay, M.D., Savannah
Willis H. Marshall, Jr., M.D., Madison
Wayne S. Maxson, M.D., Nashville
Sarada N. Misra, M.D., Knoxville
Laurence B. Molloy, M.D., Lawrenceburg
Horace N. Noe, M.D., Memphis
Charles A. Prater, M.D., Jellico
James A. Ramsey, M.D., Nashville
Margret W. Rhinehart, M.D., Spencer
Dowen E. Snyder, M.D., Memphis
William S. Taylor, M.D., Cookeville
Joseph W. Wahl, M.D., Cookeville
Gates J. Wayburn, Jr., M.D., Nashville
Ralph E. Wesley, M.D., Nashville
Joseph W. Wolfe, M.D., Dyersburg
Katherine G. Wolfe, M.D., Monterey
Alastair J. J. Wood, M.D., Nashville
Eugene G. Zachary, M.D., Knoxville

medical news in tennessee

Continuing Medical Education At Baptist Hospital—Nashville

A new affiliation agreement between Baptist Hospital of Nashville and the University of Tennessee College of Medicine makes new continuing medical education (CME) programs available to physicians in the Middle Tennessee area. These CME activities meet the criteria for Category 1 credit towards the Physician's Recognition Award of the American Medical Association.

The external portion of this program features over 60 Baptist Hospital physicians who offer their services as speakers on current medical topics at hospitals and medical societies throughout the surrounding area.

With strong support from the University of Tennessee, the internal portion of Baptist Hospital's Continuing Medical Education Program consists of seminars given both at Baptist Hospital and at locations in the immediate vicinity, including both single-day and multi-day seminars. These cosponsored seminars feature some of the finest physicians from Memphis and Nashville as well as guest speakers from other major medical centers.

Physicians interested in participating in such CME programs are encouraged to contact Baptist Hospital's Office of Continuing Medical Education at 1-800-342-2312 for more information.

national news

From the AMA's Office in Washington, D.C.

Reagan's 1984 Budget

The total budget unveiled by President Reagan earlier in the month calls for $848.5 billion in government spending for fiscal year 1984.

Of that total, the U.S. Dept. of Health and Human Services accounted for $288.8 billion, the third largest budget in the world, after the United States and Soviet Union, according to a statement by department officials.

The overwhelming proportion of the HHS budget is slotted for the Social Security Administration at $194.7 billion. Budgets of specific interest to medicine are the Public Service funds targeted at $7.9 billion, and the Health Care Financing Administration budget of $80.7 billion.

Included in the HCFA budget are dramatic proposals to change the Medicare program. Among them are a prospective payment system for hospitals; restructured coinsurance for hospitalized Medicare recipients; a voluntary voucher program that would allow Medicare recipients to enroll in prepaid health plans, such as health maintenance organizations (HMOs); a freeze on physician fees for one year, with no rules about assignment, meaning that physicians can accept Medicare reimbursements as payments in part and bill patients for the remainder; an increased premium charge for Part B coverage of physician fees, including an index for the deductible.

Other initiatives include a copayment plan for Medicaid recipients calling for $1 per outpatient visit and $1 per hospital day for beneficiaries on welfare ($1.50 and $2 for beneficiaries not on welfare).

The budget also includes a proposal to limit the tax-free amount an employer can contribute to health benefits. The line would be drawn at $175 per month for family coverage and $70 per month for individual coverage.

If the proposals are accepted, they will hold the annual growth rate of the HHS budget to 5%, down from a high of 17% in fiscal year 1981.

The long-awaited consumer choice, or competitive-model plan for health care, appears to have been shelved by the Reagan administration. Instead of a comprehensive plan that would interconnect public and private payment systems for medical care, the administration has offered a piecemeal approach that incorporates some of the competitive ideas, such as the voucher program and the tax limit on employer benefits contributions.

The most startling proposal relates to the copayment provisions for Medicare recipients, both in the hospital plan and in the physician plan. Observers long have thought that government would not propose changes in the benefits packages, but these proposals look very much like such changes.

The Medicare catastrophic coverage proposal is billed in the budget as a provision of "unlimited hospital coverage of catastrophic illness for the first time."

Explaining the provision, HHS officials pointed out that "under current law the beneficiary hospitalized in 1984 for 150 consecutive days would owe $13,475 from his or her own pocket.

"The beneficiary would also bear the full cost of all subsequent hospital days," they added.

"Under the new plan, the beneficiary's expenses would be $1,530, with no coinsurance after 60 days."

While the coverage looks greater, the fact is that the government expects to save $663 million in fiscal 1984 by implementing the plan.

What it in effect will do is shift copayment to the area of greater activity for Medicare hospitalization. Under the plan now in effect, recipients pay the full cost of hospitalization on the first day, but from the 2nd to the 60th day there is no cost sharing. From the 61st to 90th day, the recipient share now would be $87.50 per day, and $175 per day from the 91st to the 150th day.

The new plan calls for the same full pay for the first day of hospitalization; about $28 per day from the 2nd to the 15th days; about $17.50 per day from the 16th to 60th day; and catastrophic (no pay) coverage after the 60th day.

Explaining the budgetary savings, Robert J. Rubin,

M.D., HHS Assistant Secretary for planning and evaluation, pointed out that the average hospital stay for a Medicare recipient is 11.5 days. This will add $280 from each recipient to the program, resulting in the projected savings, he said.

He added that only 200,000 of Medicare recipients, numbering some 29 million, ever stay more than 60 days during a given period.

Additional savings will be realized by the prospective payment of hospitals based on 467 diagnosis-related groups (DRGs). This builds on the Medicare case management plan "Associated with hospital reimbursement changes enacted in the Tax Equity and Fiscal Responsibility Act," officials said.

The projected freeze on physicians' reimbursement under Medicare is expected to save $700 million, officials said. Dr. Rubin said that about half of the physicians in the country accepted assignment (Medicare reimbursements as payment in full). He added that there was nothing in the proposed rules to inhibit physicians from passing on fee increases to patients.

The budget proposals also anticipate gradual change in the premium and deductible for optional Medicare physician coverage under Part B of the program.

"When Medicare was established the premium was intended to cover 50% of Part B costs, but premiums now cover less than 25% of costs," officials said.

That percentage would move back up to 35% by 1988 if the new proposals are accepted, Dr. Rubin said. The per-month premium of $12.20 will remain in effect until the end of the year.

In addition, the deductible will be indexed to keep pace with costs. That savings will amount to $46 million in fiscal 1984. The premium proposals will result in $359 million additional costs for fiscal 1984, but earn $575 million in savings for the following fiscal year.

The increases in hospital copayments, premium payments, and the prospect of additional billings from physicians who do not accept assignment probably will make enrollment in HMOs more attractive for Medicare recipients, Dr. Rubin said.

Proposed budgeting for the National Institutes of Health was increased by $73 million to $4.077 billion in fiscal 1984 and the budget for the Alcohol, Drug Abuse, and Mental Health Administration was increased by a modest $1 million to $421 million.

In for severe paring was the Health Resources and Services Administration, whose budget was cut from $1.207 billion in fiscal 1983 to $977 million in 1984.

Totally eliminated from that budget was the health planning program, previously budgeted at $58 million, and drastically cut by $56 million was the health professions education program, now budgeted at $116 million.

Also cut within the Health Resources and Services Administration was the Indian Health Service, down $7 million from $660 million in fiscal 1983 to $653 million in fiscal 1984.

Funding for the National Health Service Corps would continue at $96 million, providing for a field strength of 3,283 physicians and other health personnel.

The Food and Drug Administration budget would be increased $19 million to $386 million for fiscal 1984; and the Center for Disease Control would increase to $270 million from $249 million in fiscal 1983.

Block grants for health services in prevention; alcohol, drug abuse, and mental health; primary care; and maternal and child health would be maintained at the same budget level of $1.357 billion for fiscal 1984.

AMA's Response to Budget

The AMA responded to the Reagan budget proposal by cautioning Congress not to renege on long-term promises to ensure quality health care for the nation's elderly and poor, infants, and needy young mothers by further cuts in Medicaid, Medicare and other vital health programs.

"We must caution against establishing unrealistic targets for savings in health programs that would result in limiting access and availability of health care for those individuals for whom the federal government has assumed a primary financial responsibility," said AMA's Executive Vice President James H. Sammons, M.D., before the House of Representatives Task Force on Entitlements.

Among the 1984 budget proposals challenged by the AMA is one that would delay eligibility for Medicare coverage by one month for those Americans who reach 65. AMA cited this as an example of shifting costs to the private sector.

AMA advised against a proposal to extend the 1981 Reconciliation Act reductions in Medicaid matching payments which AMA points out would simply shift an increased burden for the program to the states, many of which are also facing severe budget difficulties.

Under the latter proposal, Sammons said, "The needy in our society—those most affected by the recession and who can least afford to pay for their medical care—will be hurt the most."

AMA urged the House Task Force to consider increasing funding for the health block grants, including funds for alcohol and drug abuse and mental health programs but with particular emphasis on the maternal and child health block grant.

"The importance of maternal and child health care is self-evident," Sammons told House members. "Access to high quality prenatal, postnatal and pediatric care has profound impact upon the outcome of pregnancy and the lives of children . . . An investment in these new and young lives will inure to the benefit of this and future generations."

Sammons also called for increasing funding for the National Institutes of Health "to maintain our nation's biomedical research program to benefit all of us with new medical knowledge which can save lives or improve the quality of life."

AMA warmly supported the administration's 1984 budget proposal for a tax "cap" on employer-provided health insurance. AMA has supported the concept of such a limitation since 1978 because it would restrain the demand for medical services rather than regulating the supply which would result in rationing, Sammons said. AMA also supported the administration's proposal for catastrophic coverage for Medicare beneficiaries, with appropriate copayment during early hospitalization. But Sammons expressed the Association's

concern over the amounts of copayment and the timing of their implementation.

AMA took issue with a number of administration budget proposals for the coming fiscal year. Among these are adoption of a nationwide system of prospective pricing for hospitals unless the system is proven effective both in saving costs and maintaining the quality of health care now available to the American people; a voucher system for Medicare beneficiaries which AMA also says is yet unproven; a proposal to eliminate an incentive target rate for hospital payments in future years that would allow necessary development and use of new technologies in hospitals; a one-year freeze on physicians' reimbursement under Medicare's "reasonable charge" system. Sammons said that AMA believes that it is unfair to freeze the costs of one sector of the economy while not asking attorneys, architects and other professionals to accept a freeze and while allowing prices paid other suppliers to rise.

AMA Opposes DRG Reimbursement

The AMA has testified against the Reagan administration's proposal to base Medicare payments to hospitals on the patient's diagnosis.

Appearing before the House Ways and Means Subcommittee on Health, Jerald Schenken, M.D., a pathologist from Omaha, Neb., and vice chairman of the AMA's Council on Legislation, recommended that the committee "reject the administration's proposal to impose an untried system across the nation."

He called instead for more prospective payment demonstration projects and further analysis of the demonstration projects already in place.

The AMA opposes "a radical change in the Medicare hospital reimbursement system without assurances that quality of care will be maintained," he explained.

Dr. Schenken said the proposal, which would set a price for each of 467 diagnosis-related groups (DRGs) and which the administration wants to implement nationwide Oct. 1, "has never been tried, even on a limited scale."

The DRG experiment in New Jersey, which began three years ago, differs significantly from the administration proposal, and in any event, the New Jersey experiment has not been evaluated yet, he said.

The administration's proposal, which has not been submitted to Congress as legislation, aims to control the spiraling costs of Medicare, which now devotes 68% of its $60-billion budget to hospitals.

Proponents of the plan say that if hospitals were paid for DRG, they would have an incentive to be efficient. Hospitals now are reimbursed by Medicare on the basis of their costs.

The DRG system divides illness into 467 categories by primary and secondary diagnoses, the primary procedure used (if there is surgery), the age of the patient and the patient's discharge status. DRG 167, for example, is an appendectomy without complicated principal diagnosis, complications, or associated illness for a patient under 70.

The American Hospital Association also has proposed a DRG-based prospective payment system for Medicare, although it differs from the administration's proposal on several points, particularly as to how prices for each DRG should be determined.

Dr. Schenken said the AMA "has some of the same concerns about the AHA proposal as it has about the administration's." He added, however, that he saw merit in experimenting with the proposal, presumably on a trial basis on a state or local level.

The AMA supports experimentation with prospective payment systems that create incentives for hospitals to be more cost conscious, Dr. Schenken testified. He called upon the committee to authorize that the administration's proposal "and other prospective pricing proposals" be demonstrated on a limited scale in various states before being considered for national implementation.

Dr. Schenken said that if a hospital were underfunded by Medicare, it would respond by shifting costs to other payors, deferring such costs as maintenance, reducing nursing and other essential patient care staff, and postponing or eliminating necessary modernization and technological improvements, thus depriving patients of the highest quality of care.

"In extreme cases hospitals providing essential care could be forced to close," he said.

He added that the AMA was concerned that the administration's proposal could foster a two-tiered system of health care, with one level of care for private-pay patients and one for Medicare patients.

CPT-4 Okayed for Medicare/ Medicaid

An agreement between the federal government and the American Medical Association will allow the Medicare and Medicaid programs to use the AMA's Current Procedural Terminology, fourth edition (CPT-4), for claims processing.

The agreement allows the Health Care Financing Administration (HCFA) unrestricted use of the AMA copyrighted system of nomenclature and codes for describing medical procedures performed by physicians. It was signed by departing Health and Human Services Secretary Richard Schweiker and AMA Executive Vice President James H. Sammons, M.D.

Dr. Sammons called the agreement "a major step forward for practitioners, suppliers, and payors."

"This is quite a day for us," Dr. Sammons said at the signing ceremony. "It's a culmination of ten years work, five (HHS) secretaries, and four presidents of the United States. It speaks exceptionally well for Secretary Schweiker that we are able to sign this."

CPT-4 will be used as the basis for reporting most physician services in HCFA's Common Procedure Coding System. Schweiker noted that in the past Medicare fiscal agents have used a wide variety of descriptions and numeric codes for processing claims from physicians and other suppliers of medical services. Some agents added local modifications for new procedures and services. The mixture of systems caused

extra expense for the Medicare and Medicaid programs.

Medicare contractors will be required by HCFA to use the new system as the contractors convert their claims processing systems. Many states are expected to convert to the new program for their Medicaid programs, as well.

The AMA's nomenclature system was chosen for incorporation into the federal system because of its general acceptance and use by physicians nationwide, Schweiker said.

Schweiker noted that the system also will provide a more accurate data base for research and for predicting trends in both payments for and utilization of medical services, and will simplify reporting for physicians.

The system was tested in the Medicare and Medicaid programs in South Carolina for the year beginning July 1, 1980. An analysis by HCFA showed the test to be successful with no adverse impact.

Under the agreement, the AMA is responsible for maintaining and updating CPT-4 through the establishment of a 10-physician editorial panel. Seven of the panelists are to be appointed by the AMA, one by HCFA, one by the Health Insurance Association of America, and one by the Blue Cross and Blue Shield Association. All are subject to AMA approval.

"We're delighted to welcome HCFA representatives on the new editorial board," Dr. Sammons said. "It's an excellent example of private and public cooperation."

The AMA and HCFA also agreed to encourage health insurers to adopt CPT-4 voluntarily.

Schweiker called the agreement a step "toward meeting our common goal of achieving a national uniform coding and nomenclature system for reporting physician services."

announcements

CALENDAR OF MEETINGS

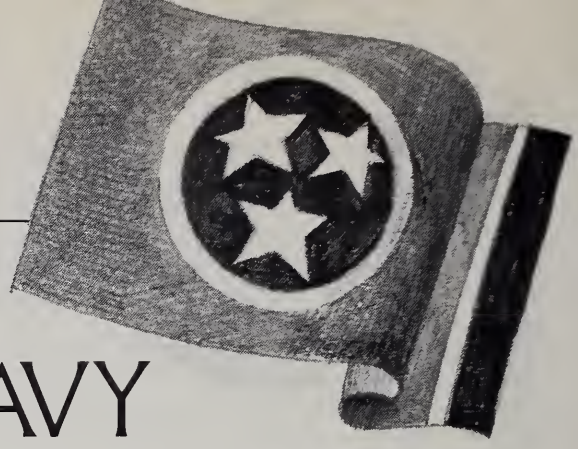
NATIONAL

May 2-6	American Psychiatric Association—New York
May 2-7	American Pediatric Surgical Association—Marriott Hotel, Hilton Head Island, S.C.
May 3-6	American Pediatric Society—Hilton Sheraton, Washington, D.C.
May 3-6	Society for Pediatric Research—Sheraton, Washington, D.C.
May 4-7	Virginia Society of Ophthalmology and Otolaryngology, Inc.—Boar's Head Inn, Charlottesville, Va.
May 5-6	American Trauma Society—Chicago
May 6-8	Southern Medical Association Regional Postgraduate Conference—Marriott Resort Griffin Gate, Lexington, Ky.
May 7-12	American College of Legal Medicine—Kona Surf Hotel, Kona, Hawaii
May 8-12	American College of Obstetricians and Gynecologists—Hilton Hotel, Atlanta
May 8-11	American Lung Association—Radisson-Muehlebach, Kansas City, Mo.
May 8-11	American Thoracic Society—Radisson-Muehlebach, Kansas City, Mo.
May 8-11	Neurosurgical Society of America—Key Biscayne Hotel, Key Biscayne, Fla.
May 10-14	Christian Medical Society—Boston
May 12-13	American Geriatrics Society—Roosevelt Hotel, New York
May 12-14	American Surgical Association—Boca Raton Hotel & Club, Boca Raton, Fla.
May 12-15	American College of Emergency Physicians—Hyatt Regency Hotel, Chicago
May 13-14	Symposium—Update of Lupus Erythematosus: Diagnosis and Treatment—West Paces Ferry Hospital, Atlanta.
May 19-21	American Cancer Society, Breast Cancer Conference—Sheraton Boston Hotel, Boston
May 21	Muscular Dystrophy Association—Sonesta Beach, Key Biscayne
May 21-27	American Society for Gastrointestinal Endoscopy—Hilton Hotel, Washington, D.C.
May 23-26	Aerospace Medical Association—Shamrock Hilton Hotel, Houston
May 23-26	American College of Sports Medicine—Town & Country Hotel, San Diego
May 24-25	Society for Surgery of the Alimentary Tract—Sheraton Hotel, Washington, D.C.
May 26-28	American Association of Genitourinary Surgeons—Greenbriar, White Sulphur Springs, W. Va.
May 26-29	American Society of Head and Neck Radiology—Marriott Hotel, Boston
June 3-5	5th Annual Institute on Medical Hypnosis: Techniques and Clinical Applications—George Washington University, Washington, D.C.
June 3-9	American Society of Neuroradiology—St. Francis, San Francisco
June 4-7	International Symposium on Pituitary Tumors—Pine Manor College, Chestnut Hill, Mass.
June 5-9	American Society of Colon and Rectal Surgeons—Sheraton Hotel, Boston
June 6-10	Myocutaneous Flap Dissection Workshop—Eastern Virginia Medical School, Norfolk, Va.
June 7-10	Society of Nuclear Medicine—Cervantes Convention Center, St. Louis
June 8-10	Endocrine Society—Convention Center, San Antonio, Tex.
June 9-12	American Medical Electroencephalographic Association—Hyatt Regency, Orlando, Fla.
June 9-14	American Diabetes Association—Hyatt Regency, San Antonio, Tex.
June 17-18	Society for Vascular Surgery—Mark Hopkins Hotel, San Francisco
June 19-22	Birth Defects Conference (sponsored by March of Dimes Birth Defects Foundation and Univ. of Washington)—Seattle
June 19-24	Flying Physicians Association—Jackson Lake Lodge, Moran, Wyo.
June 22-24	International Conference on Cochlear Implants—University of California, San Francisco
June 22-25	American College of Surgeons—Rosario Resort on Orcas Island, Eastsound, Wash.

STATE

June 15-16	Upper Cumberland Medical Society—Fall Creek Falls State Park Inn, Pikeville, Tennessee

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THE STORMY PETREL OF THE NAVY

Dr. Ninian Pinkney

An adopted son of Tennessee, Dr. Ninian Pinkney was as colorful as he was contributive to the development of the United States Medical Corps service. He has been described as a conspicuous figure, eccentric and cantankerous, a very lovable character and a stormy petrel, the last in reference to his frankness with his superiors.[1]

Born in Annapolis in 1811 (in a home that later became the site of the first Naval Academy Chapel) and commissioned Assistant Surgeon in the Navy in 1834, Dr. Pinkney served aboard the frigate *Brandywine* in the Mediterranean in 1839, on the station ship in Callao, Peru, in 1841 and on board the frigate *Saranac* in Port-au-Prince, Haiti, in 1850. During these years, he began strenuous and unceasing agitation for appropriate rank for surgeons and other medical personnel serving with the Army and the Navy. He enlisted the support of the American Medical Association, of his brother, Bishop Pinkney of Maryland, and of successive Secretaries of the Navy with whom he was friendly.[1]

Aboard the *Red Rover*

His efforts increased when, at the beginning of the Civil War, he was assigned as fleet surgeon of the Mississippi River Squadron and lived aboard the captured side-wheeler *Red Rover*, which he fitted out as the first Naval Hospital Ship, complete with fully equipped operating room.

In 1863, Dr. Pinkney's *Red Rover* was docked at Memphis, where he established a base hospital and the medical supply depot for 80 vessels of the Mississippi fleet. In Memphis, too, Pinkney enlisted the first female nurses in the Navy.

Before his retirement, Dr. Pinkney lived to see a considerable advance on his goal of status for medical officers. By 1871, surgeons were being given staff grades in the Navy. Pinkney also saw the Naval Medical Corps grow in size to about 150 members, nearly three times the number under his original Memphis command.[1]

It is a proud irony that Tennessee, a state unbounded by an ocean, can nevertheless claim credit for the invaluable services of medical men and women to the history of the United States Naval Services.

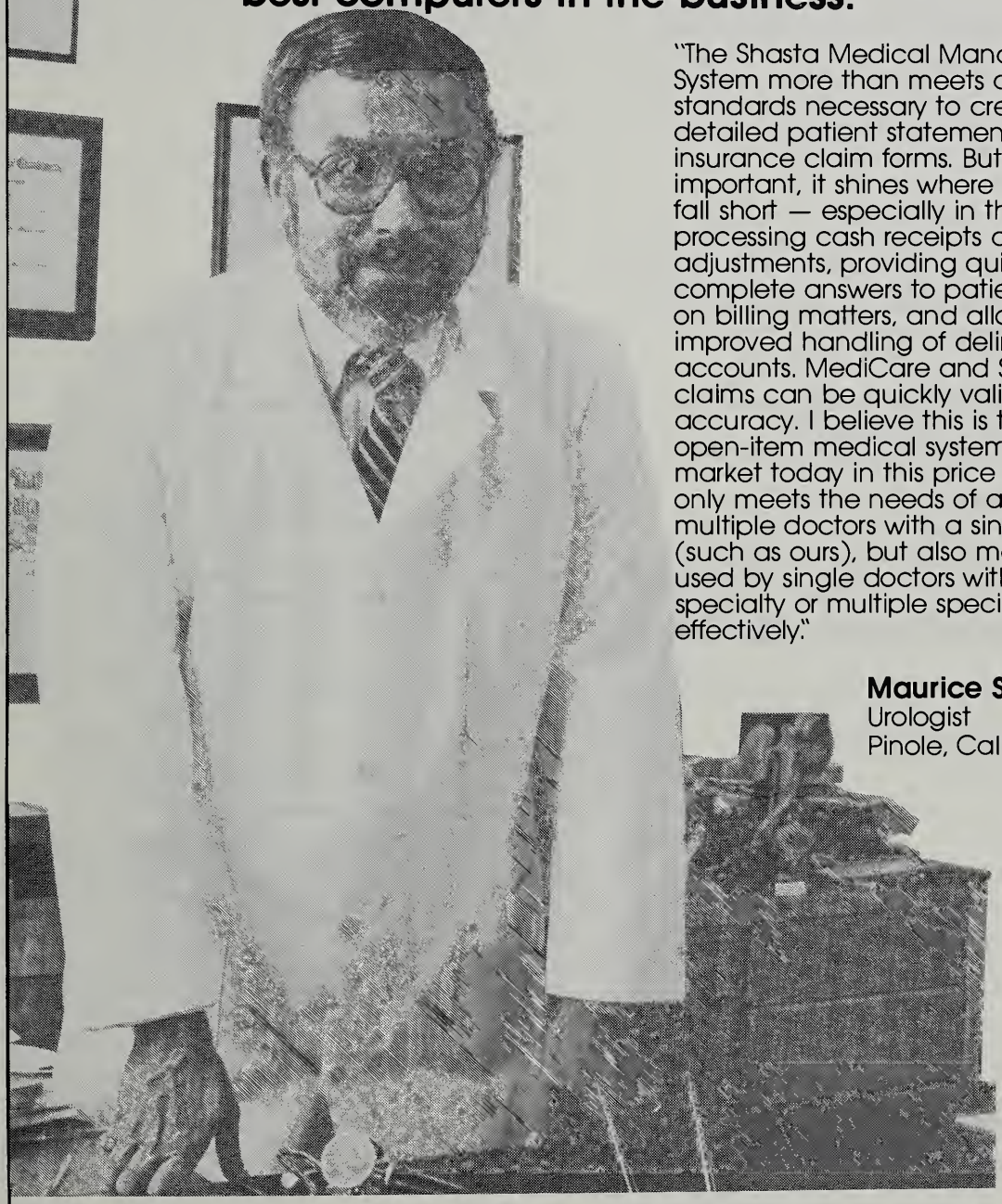
Reference: 1. Packard FR: *History of Medicine in the United States*, vol. II. New York, Hafner Publishing Company, 1963, pp. 704-711.



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IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

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Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
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Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
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Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

May 6	Factors Which Effect Sudden Cardiac Death
May 18-19	Annual Seminar in Psychiatry (for nonpsychiatrists) (9 hours)
May 26-28	Diagnostic Sonography Update: 1983 (20 hours)
June 2-4	Behavioral Neurology: Higher Cortical Functions and the Brain
June 4-5	Ophthalmology Residents Day
June 9-10	Controversies in Cardiology: 1983—Annual Scientific Sessions, Middle Tennessee Heart Association (10 hours)
July 7-9	Vanderbilt/Bowman-Gray Fifth Annual Mountain Meeting, Internal Medicine—Asheville, N.C. (12 hours)
July 19-23	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)
Sept. 19-23	Internal Medicine Review (40 hours)
Sept. 28-30	Recent Advances in Blood Banking
Oct. 13-16	International Surgical Group

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.

Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D. Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

May 4	PKU Management (A Model for Prevention of Mental Retardation
May 11-14	Symposium on Reconstructive Surgery of the Nose and Eye Internal (Open) Rhinoplasty Blepharoplasty Symposium
May 19-21	Seminar on the Principles of Management of Patients with Muscular Dystrophies
June 12-15	ECG Workshop—Pickwick Landing Resort State Park
June 13-14	Common Problems in Pediatric Adolescent Gynecology
June 29-July 2	Family Practice Update—Opryland Hotel, Nashville
July 31-Aug. 4	"Hands On" Practical Skills Workshop—Paris Landing State Park
Sept. 14-15	Diabetes Mellitus: Basic and Clinical Considerations
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Oct. 19-21	Cardiology Update—Chattanooga
Nov. 10-11	Sleep Disorders

Knoxville

May 20-21	Closed Intramedullary Nailing
June 16-18	Great Smoky Mountain Pediatric Seminar—Gatlinburg
June 23-25	Practical Otolaryngology for the Primary Care Physician—Gatlinburg
Oct. 13-15	Obstetrical Office Ultrasound—Gatlinburg
Oct. 20-22	Cancer Concepts '83—Gatlinburg
Oct. 23-25	4th Annual Smoky Mountain Seminar in Ob/Gyn—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

May 5-6	Nutritional Support
May 19-20	Infectious Diseases for the Clinician
May 21	Nuclear Medicine
May 27-29	Anesthesia Update
Sept. 30-Oct. 1	Pulmonary Update
Oct. 3-4	Recent Advances in Cardiovascular Surgery
Oct. 27-28	Liver Disease—From Prevention to Transplantation (co-sponsored with the University of Tennessee)

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

TENNESSEE DEPARTMENT OF MENTAL HEALTH AND MENTAL RETARDATION

June 5-10 Tennessee School on Substance Abuse (intensive training and educational experience addressing current issues of alcohol and other drug-related problems)—Middle Tennessee State University, Murfreesboro. *Credit:* 11 hours AMA Category 1.

For information contact Robbie Jackman, TDMHMR, Division of Alcohol and Drug Abuse Services, 505 Deaderick St., Nashville, TN 37219, Tel. (615) 741-1923.

OF SPECIAL INTEREST

AMERICAN CANCER SOCIETY

May 19-21 National Conference on Breast Cancer, 1983—Boston Sheraton Hotel, Boston. *Credit:* 16.5 hours AMA Category 1.

For information contact Nicholas G. Bottiglieri, M.D., Breast Cancer Conference, American Cancer Society, 777 Third Ave., New York, NY 10017, Tel. (212) 371-2900.

Summer CME Cruise/Conferences on Legal-Medical Issues



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*ALASKAN CONFERENCE — July 2–16, 1983. Visit Victoria, Vancover, Juneau, Columbia and Malaspina Glaciers, Seward.

*CARIBBEAN CONFERENCE — July 27—Aug. 6, 1983. Visit St. Thomas, Antigua, Barbados, Martinique, and St. Croix.

MEDITERRANEAN CONFERENCE — Aug. 20 — Sept. 3, 1983. Visit Major Cities in Italy, Greece, Egypt, Israel, Turkey, Yugoslavia.

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For information write or call: David E. Green, M.D., 10th Street at Wood Avenue, Haines City, FL 33844; Tel. (813) 422-1141.

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Springfield, Tennessee

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Laryngeal Blastomycosis

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Blastomyces dermatitidis is a dimorphic fungus endemic in the Ohio and Mississippi River Valleys which has long been noted to cause a confusing spectrum of diseases in the human. The diagnosis of this malady is often quite difficult; the relative infrequency of clinical disease, unreliability of immunologic tests, and frequent tendency for the clinical illness to mimic other, more common diseases can prove to be challenging diagnostically. The significant morbidity and mortality that results from errors in diagnosis together with the low therapeutic index of amphotericin B adds further danger to those unfortunates who contract this disease.[1]

The infection most commonly arises in the lung following inhalation of aerosolized spores, from which the organisms develop as budding yeasts. The body responds to this initial insult in various clinical fashions and with a granulomatous response at the local site of infection, which varies depending upon the integrity of the individual's immune system. From the lung, the organism can metastasize to any other organ in the body, most commonly skin, bone, and prostate.[2]

Symptoms resulting from the primary pulmonary infection vary. Acute pneumonia can occur, with cough, high fever, arthralgias, and frequently erythema nodosum. Most of these infections apparently subside spontaneously, but progressive pulmonary involvement will occur in an occasional patient. Those patients who recover spontaneously from the acute pneumonia may reactivate their disease weeks to years later. Some patients fail to develop acute symptoms, and an insidious course resembling that of tuberculosis or histoplasmosis may develop.[1]

The lack of useful serologic or skin tests not only hampers diagnostic efforts, but also causes difficulty in establishing the exact epidemiology of the disease. The diagnosis rests with identification of the organism by KOH, PAS, and other stains or by culture.[2,3]

The pathologic response of the larynx resembles that of the skin. Pseudoepitheliomatous hyperplasia frequently leads to an erroneous diagnosis of squamous cell carcinoma, not only by its clinical resemblance to verrucous carcinoma, but also on microscopic examination. Microabscesses, acute and chronic inflammation, and characteristic budding yeasts complete the pathologic picture.[4-6]

Bennett has devised a clinical staging of laryngeal blastomycosis[6,7]:

Stage 1—early inflammation, with erythema and granularity of the vocal cords and surrounding structures;
Stage 2—microabscesses, manifesting themselves as small, pinhead sized grayish papules;
Stage 3—ulceration of the mucosa, with coverage by a thin gray membrane. Removal of the membrane reveals a bright red ulcer base;
Stage 4—fibrosis, with fixation of the vocal cords;
Stage 5—stenosis;
Stage 6—fistulae develop from abscesses.

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Differential diagnosis includes carcinoma, tuberculosis, syphilis, and other fungal and inflammatory diseases.

The treatment of choice is intravenous amphotericin B therapy, starting with 1 to 10 mg on the first day, and working up to 50 mg per dose (or 1 mg/kg in children) up to a total dose of 2 gm. The basic moiety of amphotericin B is water insoluble, so intravenous preparations are mixed with sodium deoxycholate to enhance solubility, and the mixture is then dissolved in 5% dextrose in water to a concentration of 0.1 mg/ml and administered over a period of four to six hours. This usually produces fever, chills, and vomiting for which prophylactic corticosteroids should be administered. Temporary reduction of dose or even cessation of injection for a few days may be necessary when severe reactions occur. Since the curative dose of the drug is not known, all lesions should be closely monitored during treatment to gauge its effectiveness.

If all signs of disease are gone after a total dose of 1 gm, then therapy may be discontinued. Alternate day therapy can be given to stable patients, or in those with blood urea nitrogen values over 50 to 60. Toxicity to the kidney and liver occur at therapeutic levels of this drug resulting in anemia, a decrease in creatinine clearance, and an increase in potassium clearance which causes electrolyte abberations. A shock-like fall in blood pressure and a variety of neurologic symptoms has been described as commonly happening.[1,2,8]

If the disease is still unstable despite full course amphotericin B therapy, or if it is still progressive after 500 mg of total therapy, or in patients with severe renal disease, 2-OH stilbamidine is given. This agent has been proven quite effective against *Blastomyces*, but treatment failures and relapses occur more often than with amphotericin B. It is administered by daily intravenous injections of 225 mg, six days each week until a total dose of 8 gm is reached. One then waits two months, and if clinical control has not been reached, another 8 gm course is begun. Toxicity includes hepatic dysfunctions and fifth cranial nerve neuritis.



Figure 1. Laryngeal biopsy showing granulomatous inflammation, intraepithelial microabscesses, pseudoepitheliomatous hyperplasia, and ulceration. (H & E, original magnification X 125)

Case Report

A 57-year-old farmer's wife had been receiving antibiotic therapy from her local family practitioner for chronic sinusitis and bronchitis. While following her for these problems the physician noted that she was becoming increasingly hoarse despite apparently successful treatment for her other problems, so the patient was referred for evaluation of hoarseness. Other significant history included a left mastectomy with postoperative radiation and chemotherapy for carcinoma, and a long history of one pack per day smoking. Physical examination revealed a normal postmastectomy scar, and a polypoid mass on a hypomobile left true vocal cord. Chest x-ray was normal, and laboratory studies were unremarkable. The patient was taken to surgery where extensive biopsies were taken in anticipation of possible cancer surgery, but when pathology revealed *Blastomyces dermatiditis*, she was started on amphotericin therapy which dramatically shrunk her lesion, so that no evidence of disease was apparent after one month of therapy.

The biopsies variously showed granulomatous inflammation, intraepithelial microabscesses, pseudoepitheliomatous hyperplasia, and focal ulceration (Fig. 1). Fungal yeast forms typical of *Blastomyces dermatiditis* were found in all biopsies (Fig. 2). In occasional instances in which organisms were not demonstrated by Gomori methenamine silver stain, they were identified in the H&E sections.

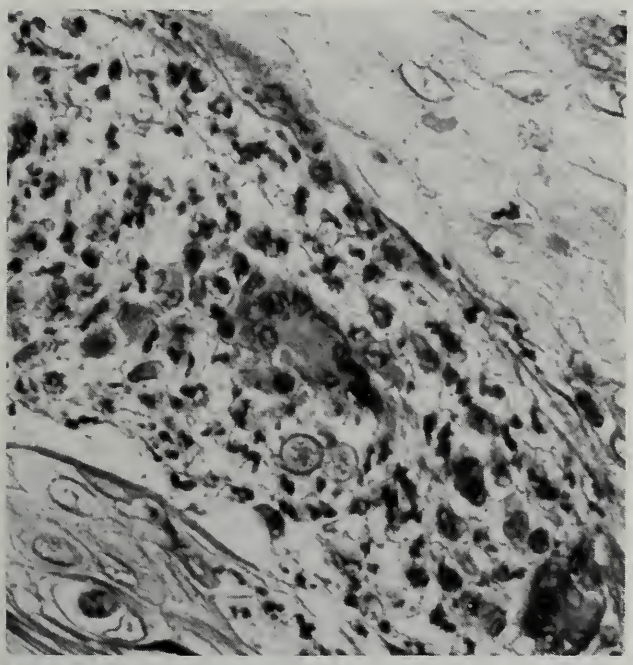


Figure 2. Intraepithelial microabscess containing thick-walled yeast form typical of *Blastomyces dermatiditis*, with single broad-based septate bud. (H & E, original magnification X 500)

Conclusions

The diagnosis of carcinoma of the larynx should always be made with great care, especially in those areas where the organism *Blastomyces dermatiditis* is endemic, and especially in the presence of clinical and pathological pseudoepitheliomatous hyperplasia. Blastomycosis, though rarely reported, is probably more common than suspected due to the difficulties encountered in its diagnosis. However, with vigilance and a high index of suspicion, appropriate treatment with amphotericin B can rapidly cure this malady and avoid the severe disfigurement and morbidity suffered when errors in diagnosis are made.

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What's New in Scoliosis?

ROBERT R. MADIGAN, M.D. and SIDNEY L. WALLACE, M.D.

Scoliosis, or lateral curvature of the spine viewed from the front or back, was first described by Hippocrates.[1] The first successful surgical treatment was described by Hibbs in 1924 when he adapted a method of posterior spinal fusion originally used in the treatment of tuberculosis of the spine.[2] The first successful brace treatment of scoliosis was the Milwaukee brace devised by Blount and Schmidt in 1946.[3] Originally designed as an operative brace, it was later used as a successful means of treating scoliosis nonoperatively, and to this day remains the hallmark of nonoperative brace treatment. A second milestone in the surgical treatment of scoliosis was reached when Harrington added a method of internal stabilization of the fused spine to permit early ambulation.[4] In 1966 the Scoliosis Research Society was founded for stimulating research and promoting more effective treatment programs.[5]

We present here four exciting new developments in the diagnosis and treatment of scoliosis.

School Screening for Scoliosis

Early detection of scoliosis is invaluable, since small curves are easily braced if they are noted to progress, thereby avoiding the majority of costly surgical procedures. The logical screening technique to detect a problem primarily found in children would be a school screening program. School screening for visual and hearing disorders has been utilized for many years in the United States. The first school screening program for scoliosis in the United States was instituted in Aitken, Minn. in 1963.[6]

School screening is carried out by physical education instructors in conjunction with school nursing personnel. The team is ideally suited for the job, since the children are available in proper clothing (gym clothes) during physical education classes, and nurses have the educational background to be trained in screening techniques. Two classes, the fifth and seventh grades, are screened yearly. By screening two grades, each child will be seen twice during his developmental years.

From the University of Tennessee Medical Research Center for Health Sciences, Knoxville, and the Knoxville Orthopedic Clinic.

Reprint requests to P.O. Box 11047, Knoxville, TN 37919 (Dr. Madigan).

The test for early detection of scoliosis is the forward bend test, which easily demonstrates asymmetry of the spine. The most consistent early finding of scoliosis is a rotational prominence on forward bending. The prominence is due to a rotation of the spine that accompanies the lateral curvature, and may involve the ribs with a thoracic rib hump, or the lumbar area with a paravertebral muscle mass.[6] In the forward bend test the child, lightly clothed (gym clothing), stands with the feet together, with knees straight, and bends forward at the waist, letting the arms hang loosely with the palms together. The examiner stands or is seated at the head of the child, and looking down the back compares the two sides (Fig. 1). A difference in height or an asymmetry between the two sides raises the suspicion of scoliosis (Fig. 2). In addition, other signs of scoliosis, namely uneven shoulders, prominent scapu-

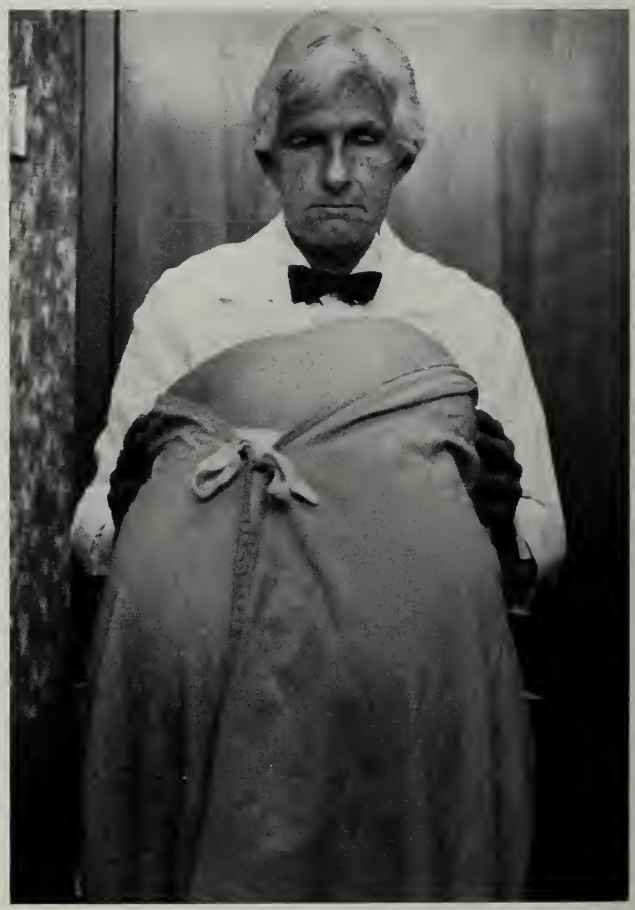


Figure 1. Examiner performing the forward bend test for scoliosis.

lae, uneven waistline, or trunk overhang can also be noted. If the screening test is positive, the child can be referred to his physician for definitive diagnosis and possible treatment.

School screening programs have shed significant light on the prevalence of scoliosis in the western world. In the normal population, its incidence is approximately 2.5%, or 25 cases per 1,000 children screened.[7] Approximately three per thousand will require treatment, since their curves will be greater than 25°. Screening makes sense from a financial point of view, since bracing of early curves costs approximately $2,000, compared to $10,000 for later surgery. There is no doubt that effective screening has changed the pattern of scoliosis treatment for the better. In a stable population in Sweden, over a ten-year period significant improvement has been noted. Although treatment principles remained the same, the percentage of patients who required an operation decreased each year. The magnitude of the most severe curve detected each year also decreased from an average of 64° to 44°.[8]

School screening in Tennessee began in 1976 with a pilot program in the Knoxville City Schools under our supervision. Subsequently the program has expanded to surrounding school districts each year, until presently 25 of the 147 school districts in Tennessee employ a school screening program. We have both noted an approximate 50% decrease in surgical procedures for idiopathic scoliosis since the program's inception.

Since there is no doubt that early detection combined with early brace treatment is the most efficient method of scoliosis treatment, a logical conclusion would be that all school districts in Tennessee should mandate school screening for scoliosis.



Figure 2. Positive forward bend test. Note elevation of the right paravertebral area.

Electrical Stimulation in the Treatment of Scoliosis

Since 1950 the primary treatment for idiopathic scoliosis has been the Milwaukee brace. It has been found to be an effective nonoperative method for preventing progression of curves in the majority of cases.[3,9-12] The Milwaukee brace is worn 23 hours a day until growth of the spine is completed, averaging approximately two to six years. Its major drawbacks are the limitation of physical activity of the patient, and the bulky nature of the device, making it impossible for patients to conceal it. These drawbacks may lead to poor patient compliance in wearing the brace. To circumvent these problems, several groups have developed more cosmetically acceptable variations, such as the TLSO (thoracic-lumbosacral orthosis).[13,14]

An alternative form of treatment utilizing electrical stimulation to treat idiopathic scoliosis is now emerging. It was first introduced in France in 1870 by Seiler, and the modern concepts have been advanced by Bobechko (1970), McCullough (1971) and Axelgaard (1976).[15] Clinical observation of scoliosis suggests that the curve may develop as a result of muscle imbalance, i.e., one side may be too strong, pulling the spine down, or the other side may be too weak, allowing it to collapse. If one could continuously stimulate contraction in the muscles on the convexity of the curve, then possibly the curve could be controlled and progression prevented. Since muscles physiologically are controlled by electrical impulses, it seems logical that some type of electrical current could be used to induce this corrective muscle action. The goal of treatment was to develop a technique for treating progressive idiopathic scoliosis in growing children that would be as effective as the Milwaukee brace, but less cumbersome and restrictive.

Two types of systems are currently being evaluated. In the system developed by Bobechko, electrodes are surgically implanted into the paraspinal muscles on the convex side of the curve. The electrodes are attached by wires leading from the muscles to a receiver embedded beneath the skin. An antenna placed on the skin over the receiver is attached to the transmitter by a lead wire. The actual stimulation pulses are transmitted from the transmitter via the antenna through the skin to the receiver. The advantage of this

system is that the desired muscle group is directly stimulated. Disadvantages include the need for surgical implantation of the device, the occasional need to reimplant the device if it becomes loose, and the need to remove the electrodes at the completion of treatment. Preliminary results suggest an approximately 83% success rate in controlling idiopathic scoliosis, approximating the results of the Milwaukee brace treatment.[16]

The systems developed by Axelgaard and McCullough utilize the same principles, except that no surgical procedure is necessary since muscles are stimulated through the skin by surface electrodes. The latest results indicate a 70% success rate and a 30% failure rate. One-half of the failures are due to increase in the curve during treatment and one-half to noncompliance.[17]

The lateral electrical stimulation technique described by Axelgaard and Brown is an investigational study that has been applied to 548 patients in 58 centers in North America and Western Europe. We are both members of the investigational team and presently have 12 children under treatment. The unit itself is called ScoliTron™, and includes an electrical stimulator, battery pack with charger, electrical leads, rubber snap-on electrodes, and electrode gel. The electrodes are placed laterally on the convex side of the curve, and connect via the lead wires to the transmitter (Fig. 3). The stimulation is approximately 70 mamp of voltage, gradually building with contraction of the muscles for two seconds to a full current, which is maintained for four seconds, then is off for six seconds, permitting the muscles to rest and preventing muscle fatigue, making a total cycle of six seconds on and six seconds off. The 12-second cycle is repeated during night hours only, resulting in eight to ten hours of stimulation per day. Under stimulation there is both a visual and roentgen correction of the curve. The stimulation is well tolerated by most patients (Fig. 4).



Figure 3. Scoliosis patient with ScoliTron electrodes in place. Note the lateral position.

The major disadvantages of this technique include intolerance by the patient to the sensation of muscle stimulation, skin rash beneath the electrode pads, and the need for greater daily attention to details in utilizing the ScoliTron by both the child and parents.

The wearing of the device is only at night, thus not limiting physical activity, and lack of cosmetic disadvantage have made it quite popular with scoliosis patients. This appears to be its major advantage.

Electrospinal stimulation is a new and exciting advance in the field of scoliosis management. Although still in its early stages, results indicate reason for optimism. It has been used as an alternative to the Milwaukee brace at our clinic during the last two years. Although more time is required for long-term evaluation, thus far it is very encouraging.

Intraoperative Spinal Cord Monitoring

Surgeons have long recognized the potential danger of neurologic injuries associated with scoliosis surgery. With the advent of improved technology, large corrective forces have been applied to spinal deformities intraoperatively. The procedures, most frequently done in patients who are neurologically normal, occasionally cause neurologic complications. The latest morbidity report of the Scoliosis Research Society reported 27 patients sustaining neurologic lesions to the spinal cord as a result of surgery, an incidence of 0.5%.[18] Intraoperative monitoring of cardiac function has become standard procedure in modern surgical suites to make the anesthesiologist and surgeon aware of cardiac problems. Techniques to moni-

tor spinal cord function during certain types of spinal surgery including scoliosis have also recently become available.

The first recorded stimulation of peripheral nerves with recordings from a scalp electrode is credited to Dawson in 1947,[19] and in 1974 Nash first reported the use of intraoperative somatosensory-evoked responses during spinal surgery for scoliosis.[20]

All methods are basically similar, in that they stimulate a nerve on one side of an existing, or potential, spinal cord lesion, and record the state of transmission to the other side of that lesion. The most commonly employed clinical method uses the somatosensory cortical-evoked potentials; this system utilizes stimulation of a mixed peripheral nerve, such as a posterior tibial or ulnar nerve, with recordings from the scalp electrode over the appropriate contralateral cerebral cortex. Multiple stimulation recordings are fed into a computer, which averages the responses and results in a spinal cord electrogram (Fig 5). These averaged responses are recorded preoperatively, intraoperatively before correction, and immediately after the corrective device has been applied. If any sustained change in the response is noted, instrumentation can be removed, with return of normal spinal function. One need not wake the patient during the procedure to check voluntary motion of the toes, nor wait until the end of the procedure to assess spinal cord function. Presently, the main drawback of spinal cord monitoring is the cost, in regard to both equipment and the number of highly trained personnel required to conduct clinical monitoring. In our institution, the monitor is operated by a technician, with a neurologist to make the critical evaluation at the time of surgical instrumentation. Since January of 1982, 39 spinal procedures have been performed with spinal cord monitoring at our institution. Repeated use has refined the technique so that it is quickly and efficiently applied without interference to the surgical team.

It is apparent that spinal cord monitoring will become an important adjunct to spinal cord surgery. Although scoliosis provided its initial impetus, it has significant application to spinal cord trauma and direct spinal cord surgery and reconstruction.

Segmental Instrumentation— A New Technique in Scoliosis Surgery

For the past 20 years Harrington instrumentation has been the most widely used system for both correction and internal stabilization of scoliotic curve.[4] Surgery is generally indicated in idi-

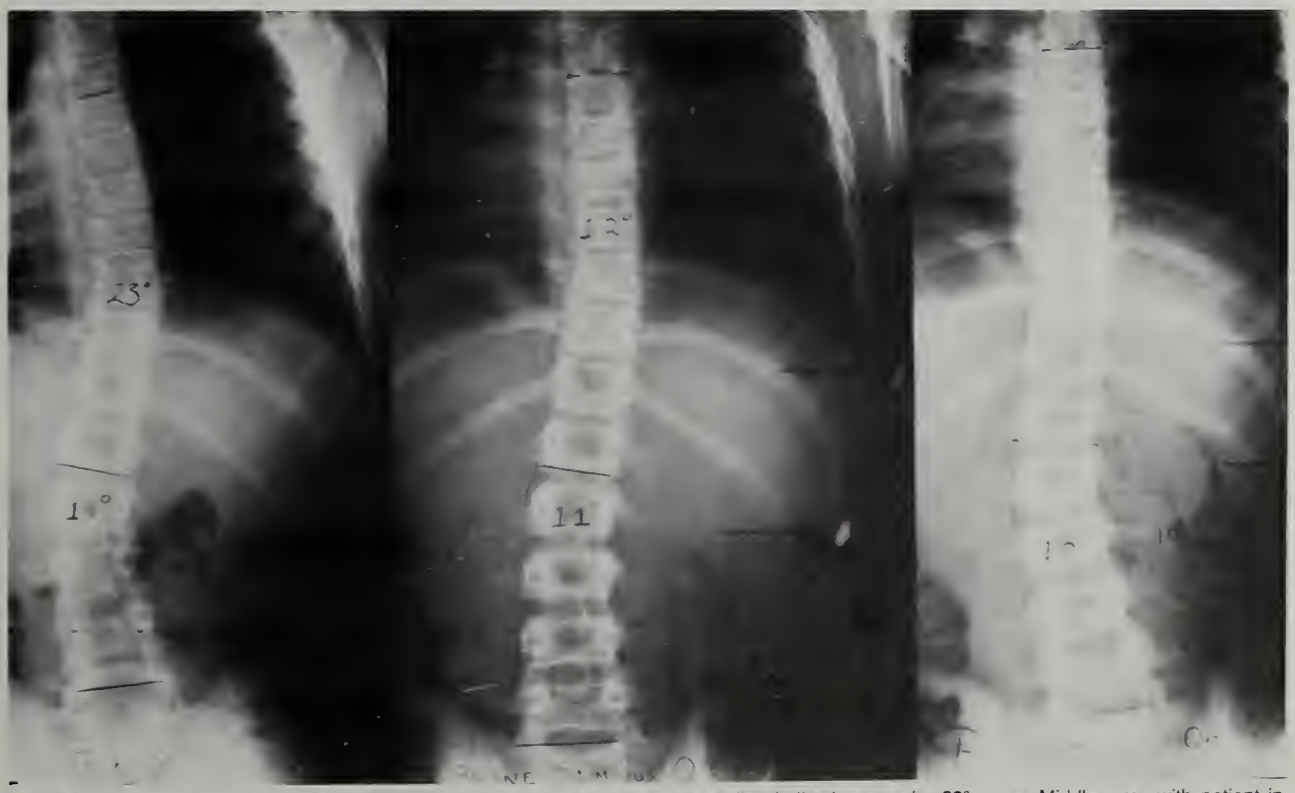


Figure 4. X-rays of scoliosis patient in ScoliTron program. X-ray on left is standing indicating a major 23° curve. Middle x-ray with patient in prone position and no stimulation. Note curve decreases to 12° when gravity is eliminated. One can see electrodes as indicated by arrows. The x-ray to the right is same patient with stimulation on. Note further decrease of curve to 5°.

opathic scoliosis for curves in excess of 40° to 50° in the immature spine. The vertebrae within the curve are fused into a solid block to prevent progression of the curve. Harrington instrumentation has a two-fold purpose. First, the distraction system acts like a jack within the concavity of the curve to obtain partial correction, decreasing the magnitude of the curve by approximately 50%. Second, the rod acts as an internal stabilizer to prevent motion while the fusion takes place. Postoperatively, the patient is placed in a body cast or scoliosis brace for six to nine months.

The long period of postsurgical immobilization is the main disadvantage of the Harrington system. In addition, the system has not proven strong enough to permit a satisfactory fusion rate when only a posterior spinal fusion is utilized, as in certain types of neurogenic scoliosis such as that seen with cerebral palsy and myelodysplasia. In these children, it has been necessary to perform both an anterior interbody fusion, and a second stage posterior fusion with Harrington instrumentation. Postoperative immobilization in plaster or brace is extremely difficult in these neurologically deficient children.

Recently, a system based on the principles of sublaminar wiring for fixation of steel rods to the spine has come into use in the United States. The system, known as segmental spinal instrumentation, has gained its present popularity due to the efforts of Edwardo R. Luque, M.D.[21,22] of Mexico and Ben L. Allen, Jr., M.D. of Texas.[23,24]

With this system, two stainless steel rods are placed along the lamina of the vertebra on either side of the spinous process. They are fixed to each verbetra with wires passing beneath the laminae (therefore adjacent to the dura) and tied around the rod (Fig. 6). This fixation is performed at each segment or vertebra of the curve, thus, segmental spinal instrumentation. The use of two rods with segmental wiring results in a very rigid system of fixation.

There are two major advantages of segmental spinal instrumentation. It is the strongest available means of spinal fixation, and due to its strength, no postoperative immobilization is needed. Rapid mobilization is accomplished (Fig. 7). It also eliminates the need for anterior spinal fusion in many patients with neurogenic scoliosis.

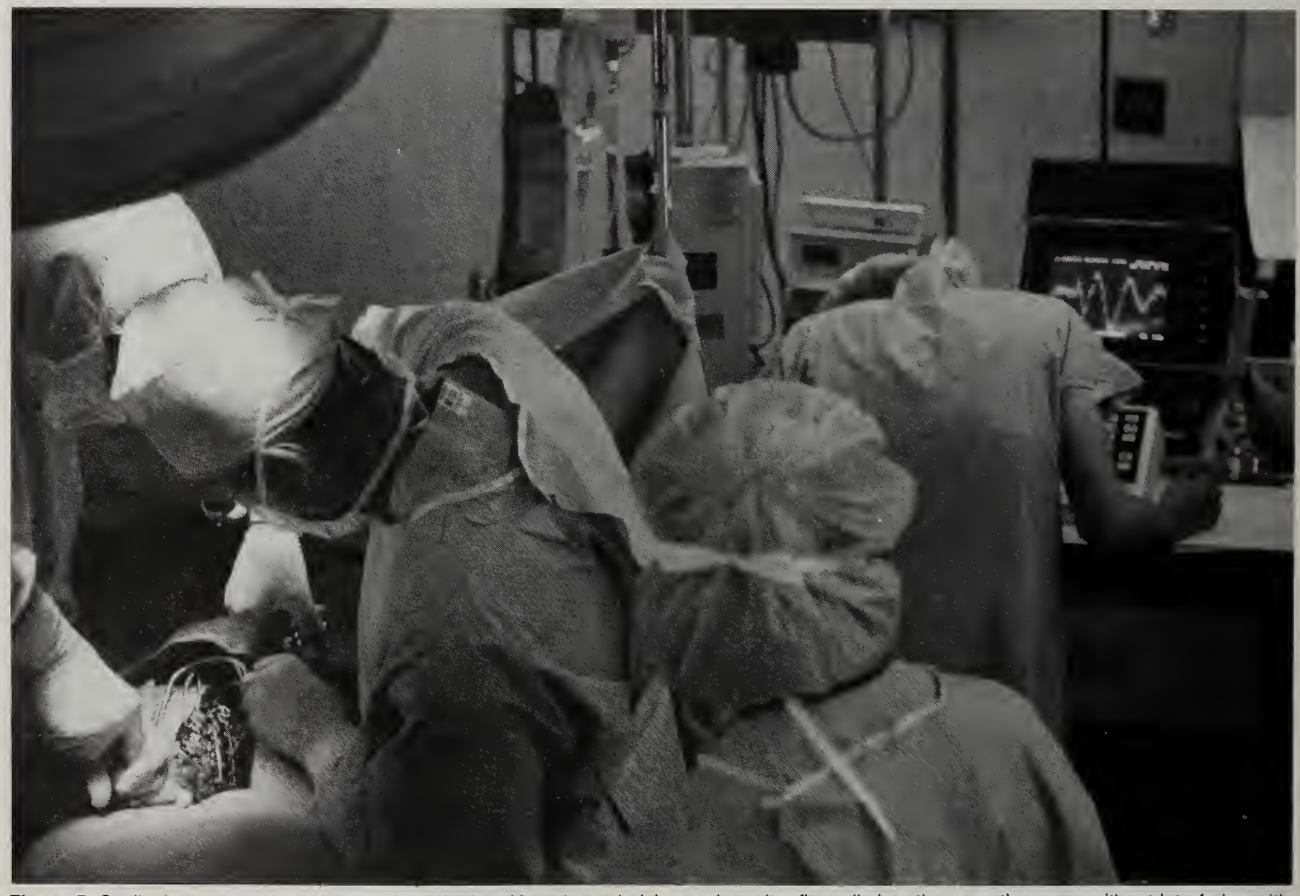


Figure 5. Scoliosis surgery with spinal cord monitoring. Note the technician and monitor fit easily into the operating room without interfering with the surgeons. The electrogram can easily be visualized on the screen.



Figure 6. Intraoperative photograph. Two "L" rods are wired in place at each vertebra. Note mild residual right thoracic curve is present.



Figure 7. Patient with idiopathic scoliosis five days after surgery with segmental spinal instrumentation. The wound on the left hemipelvis is bone graft site. Note child is standing with no postoperative brace or cast.

Segmental spinal instrumentation is a new technique in scoliosis surgery. It offers the advantages of rigid fixation without requiring postoperative immobilization. The disadvantages of increased operative time and greater technical demands are slight when compared to these advantages.

The last 70 years have seen significant advances in the treatment of scoliotic deformities. Significant progress remains to be made, since the cause of the most common type, idiopathic scoliosis, still eludes the medical community. Until the causes can be identified and eliminated, we will continue to need treatment techniques that are both effective and safe. It is essential that the practicing physician keep abreast of these new techniques in order to advise, educate, and direct his patient in the best possible manner.

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Closed Malpractice Claims Against Tennessee Physicians, 1975-1978

PAUL A. MANSHEIM, M.D.

Medical malpractice suits constitute one of the most onerous aspects of medical practice, as the amount of elapsed time between the incident and the time of the reported claim is relatively long, and large suits are given great publicity. While physicians understandably fear involvement in such lawsuits, and in the legal system that spawns them, relatively little useful information has been available to help physicians gauge the nature and magnitude of the threat that they face.

The National Association of Insurance Commissioners published a study of all medical malpractice claims closed between July 1975 and December 1978.[1] A closed claim is one that has been either paid or dismissed. Many claims covered in the study originated before 1975, and many initiated during the years of the study were not closed during those years. In spite of these limitations, the study is quite complete.

During the time of the study, 624 claims against physicians in Tennessee were closed; of those, 129, or 20.1%, were paid claims.[1(p115)] In the nation as a whole, 43,464 claims against physicians were closed, of which 16,429, or 38%, were paid claims. Looking at the data from a different perspective, in Tennessee there were 3.37 claims per 100 physicians per year and .70 paid claims per 100 physicians per year, whereas in the nation as a whole these figures were 3.83 claims and 1.45 paid claims, respectively. Therefore, with regard to closed malpractice claims against physicians in the years 1975 to 1978, physicians in Tennessee were somewhat less likely than physicians across the country to be involved in a closed medical malpractice claim. Moreover, Tennessee physicians were approximately half as likely to be involved in a *paid* closed claim. The average amount paid out in a paid closed claim against a physician was $16,572 in Tennessee and $25,161 across the nation.

With regard to large paid claims, those of $100,000 or more, two such were settled in Tennessee during the time of the study. There were therefore .01 large paid claims per 100 physicians per year in Tennessee. Nationally, there were 1,066 large claims paid, or .09 large claims per 100 physicians per year. Therefore, Tennessee physicians were much less likely than physicians across the country to be involved in a large paid claim during the years 1975 to 1978.

Another painful aspect of medical malpractice cases is the long time that elapses between the incident that gives rise to the case and its ultimate disposition. During the time of the study, the average elapsed time in Tennessee from the incident until the filing of the claim was reported to the malpractice insurer was 11 months for a paid claim and 12 months for a claim that was closed without payment. In the nation as a whole, the elapsed time was 17 months for a paid claim and 16 months for an unpaid claim.[1(p124)]

The average elapsed time from incident to final disposition was 28 months for paid claims and 28 months for unpaid claims in Tennessee, whereas nationally, 41 months and 32 months were the averages, respectively. Tennessee physicians were thus subjected to a somewhat shorter period during which a claim was active.

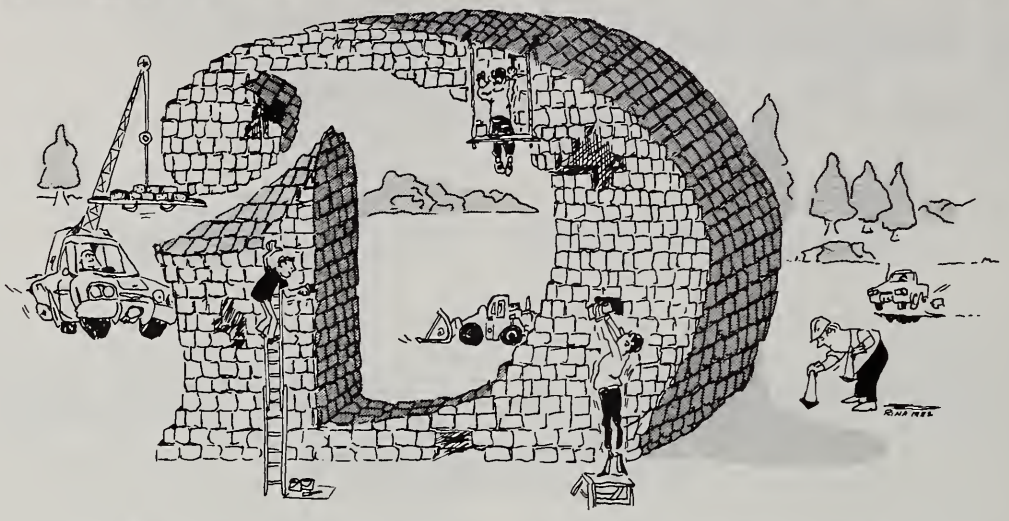
While no one would recommend that Tennessee physicians be sanguine about the medical malpractice situation as a whole, it appears that during the period of the study, which ended five years ago, Tennessee physicians were at somewhat less risk than were physicians across the country for being involved in medical malpractice cases. The amounts lost in paid claims were lower in Tennessee, and the average amount of time that a claim was active was also lower.

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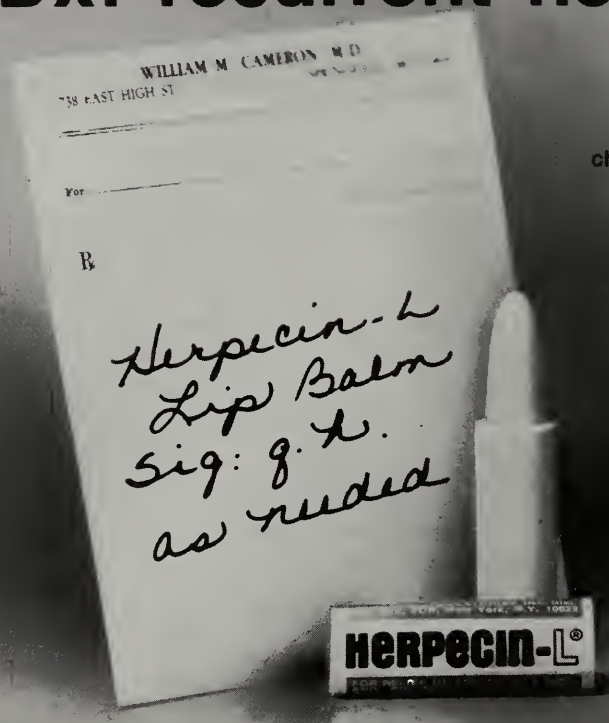


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AMA Activities in Preventive Medicine

At the 1982 Annual Meeting, the House of Delegates adopted the Address of the President and the five recommendations made in the address by President Daniel T. Cloud, M.D. The House voted to

1. Reaffirm the Association's past actions that pertain to the health hazards of tobacco, alcohol, accidental injuries, unhealthy life-styles, and all forms of preventable illness.
2. Intensify the Association's leadership in promoting better health for Americans through prevention.
3. Recognize that preventable illness is a major deterrent to good health and accounts for a major portion of our country's total health care and expenditures.
4. Actively initiate and support appropriate scientific, educational, and legislative activities that have as their goals (a) prevention of smoking and its associated health hazards, (b) avoidance of alcohol abuse, particularly that which leads to accidental injuries and deaths, (c) reduction of death and injury from vehicular and other accidents, and (d) encouragement of healthful life-style and personal living habits.
5. Strongly emphasize the important opportunity for savings in health care expenditures through prevention.

What follows is a summary of AMA activities affirming the Association's continued commitment to these principles and pointing to expanded programs to provide health information to the American public and the physician population.

A growing number of AMA activities are directly or indirectly involved in providing information to the media.

A strong public service announcement (PSA) program emphasizes public awareness about health hazards and encourages healthful life-styles. PSAs on adult and teen alcohol abuse, good nutrition, hazards of smoking, and immunization have been produced over the last three years for distribution to more than 2,000 television stations in the country's top 100 broadcast markets. A special PSA package including several television PSAs and radio spots promoting the use of Patient Medication Instructions (PMIs) by physicians and patients will be distributed during this year and the next two years.

Health & Safety Tips for radio and newspapers have been distributed regularly over the past years.

A major addition to the public information program is American Medical Radio News, begun in May 1982, which provides pre-recorded science and medicine news to radio stations on a 24-hour call-in basis using free 800 telephone numbers. These spots offer highlights from scientific meetings, journal articles, current health issues, as well as health and safety tips. American Medical Radio News receives over 4,000 calls a month.

For the print media, the AMA produces a weekly release packet of science and medicine news distributed to more than 2,000 newspapers and magazines nationwide. News releases present highlights of scientific journal articles and *American Medical News* articles of interest to the public.

Further assistance is provided to the media on a call-in basis. An average of 600 questions each month on health issues are answered by AMA for writers who are preparing articles or broadcast programs.

The AMA also publishes books for the public through Random House publishers. In September 1980, the Consumer Book Program issued its first book, *The Handbook of First Aid and Emergency Care*. It became a book club selection and its continuing popularity is reflected in the number of copies sold to date, over 70,000. The philosophy of the book program is to promote individual responsibility for preventable illness and injury.

In keeping with this philosophy, the Consumer Book Program next issued three companion volumes: *HeartCare, WomanCare,* and *BackCare*. The hardback editions were printed in March 1982 and a paperback reissuing is scheduled for fall 1983.

Most recently the *AMA Family Medical Guide* (August 1982) was issued and immediately became a Literary Guild book club selection. Future consumer book titles include *Nutrition* (fall 1983), and *Health Care for Middle Age* (fall 1983). A baby book for working parents is planned for the future.

For many years, the AMA has published pamphlets and brochures on health and medical topics for general and specific audiences. Examples include fitness and sports, foods and nutrition, smoking, alcohol and drug abuse, sex education and birth control, and stress in the workplace. These publications are revised periodically and are available upon request. In addition, the AMA has developed a computerized Health Information Clearinghouse which will make information sheets available to patients and the public. The Clearinghouse will also provide a referral service for the public—telling the public about other health education and information resources available, e.g., through medical specialty societies or national health organizations. This information will meet the needs of the 2,000 people who call each month. The Clearinghouse also will offer a service for health professionals about developing and evaluating health education programs.

The AMA has developed a patient education series which consists of a 10 to 15 minute audiovisual presentation, a pamphlet for the patient, and a pamphlet for the physician. These are designed for use in physician offices. Topics include home health care, taking prescription medications, life-style/smoking, and how to work with the physician.

A special effort is now being made to reach the Spanish-speaking public. A cross-cultural patient and

This is AMA Board of Trustees Report A, submitted to the House of Delegates at its Interim Meeting in December, 1982. Past House Action: A-82:6-9.

health education program is now being developed and the hiring of a Spanish-speaking physician is planned.

The AMA actively pursues liaison with other prominent national health education organizations to promote common health education goals and the sharing of resources.

The AMA also sponsors national conferences on many health-related topics. Recent conferences include sodium labeling for foods, occupational health, diet and exercise, and sexually transmitted diseases. The 42nd Annual Conference on Occupational Health was held Nov. 17-19, 1982, and addressed issues of hazardous wastes, industrial hazards, nuclear energy, mining, and common hazards of maritime and agricultural industries.

A Conference on Prevention of Disabling Injuries is scheduled for May 1983. This conference is a direct outcome of the AMA's commitment to the National Year for the Disabled, and will address the definition of injury and disability; the prevention of injuries on the highway, at home, and during recreation; injuries related to agriculture and industry; the physician's role in preventing handicap and disability due to injury; and society's viewpoint.

Special attention will be paid to the association of alcohol abuse and injury.

A National Conference on the Child is scheduled for September 1983. This special conference will focus on timely child-related health problems: child abuse, substance abuse, teen pregnancy, teen sexuality, childhood depression, nutrition-special diets, and child suicide. These topics reflect the AMA's response to changing needs of children that require behavioral approaches to pediatric health problems as well as the preventive care and cure of diseases associated with childhood. The conference also is responsive to President Reagan's call for attention to children and his proclamation for a National Day of the Child.

Conference reports are published and made available to physicians through the AMA. Physicians' guides have also been developed on specific occupational health issues: air, water, noise, odor, and solid waste pollution. Other publications on environmental, public and occupational health are also available. AMA publications are often ahead of other national or federal organizations in responding to public concern in these areas. The AMA's in-depth publication on *Dioxin/ Agent Orange*, published in 1981, is an example.

The AMA policy of prevention and public education is exemplified by a longstanding commitment to immunizations for preschool and school-age children, fluoridation of water supplies, promotion of seat belts, infant/child restraint seats and other passive crash protection systems, recommendations for worker and public safety, and support of public education about communicable diseases.

The Association continues to support healthful life-styles and prevention of disease and injury through federal legislative and regulatory actions. A report of the Council on Legislation reviews the efforts of the past three and one-half years. The Association has made numerous statements in support of AMA policy on alcohol and drug abuse, occupational safety and health, smoking, nutrition and food safety, highway safety, environmental protection, injury prevention, healthful life-styles, and maternal and child health.

In addition, model state legislation is developed on a continuing basis. Examples include low-level radioactive waste disposal, anti-smoking, and the outlawing of "look-alike" drugs.

This year, a nationwide public opinion survey was conducted and the results are now being analyzed. The survey focused on the public's view of healthful life-styles and the extent to which the American public has modified life-style behavior to improve health. The public was asked to respond to questions about life-style traits such as salt intake, increasing bulk and fiber in the diet, exercise, smoking, and alcohol consumption. For example, 86% of Americans know that exercise is conducive to better health. However, 36% of this group admit they do not exercise even though they know it to be beneficial. In contrast, of the 80% who understand the relationship between moderate alcohol consumption, only one in ten has not modified his behavior appropriately. Based on this information, analysis can identify population subgroups that will most benefit from education vs motivational types of programs. These data can then be used directly to improve the cost-effectiveness of resources to improve the health of the American public through prevention of unhealthy life-style practices.

The AMA has initiated a broad-reaching program that will enable physicians across the country to give their patients supplementary written instructions along with a prescription for the most widely prescribed medications. The voluntary program, called Patient Medical Instruction (PMI), makes PMI sheets available to practicing physicians for appropriate distribution to their patients. Use of PMIs is expected to improve the effectiveness of therapy, reduce the risk of improper drug use, decrease the incidence of preventable and serious adverse drug reactions and help patients comply with instructions about taking their medications properly.

The AMA is developing an extensive program aimed at the public that will assist various organizations, agencies, institutions and professions involved in controlling and preventing the misuse and abuse of prescription drugs.

The Association has been involved in the health care coalition activity for the past several years. In its encounters with the business community, the AMA has advocated health education and promotion activities as a means, not only to reduce health care costs, but to improve the health status of the employees. The Minnesota Coalition on Health Care Costs has published the "Employer's Guide for Health Promotion in the Workplace." The Maryland Health Care Coalition has published the "Health Care Management Book." The Nashville (Tennessee) Academy of Medicine has conducted worksite health promotion conferences to look at life-style-related medical and health problems and present possible solutions. The Association's Department of Health Care Coalitions acts as a resource to the federation for technical assistance in this area.

The Association will continue to sponsor appropriate programs and legislative initiatives designed to improve the health of the American people and to lower the cost of medical care through individual responsibility for healthful life-styles.



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Thoracic Aortic Aneurysm With Spontaneous Rupture

CHARLES E. KOSSMANN, M.D., Editor

FELIX CALDWELL, M.D.
(Resident Physician)

An 87-year-old white man complained of chest pain for 40 minutes one day before admission. It was pressing in nature, began at the sternal notch, and radiated to the epigastrium on swallowing liquids or medication. Two somewhat similar episodes occurred two months earlier.

He suffered for years from chronic obstructive pulmonary disease and arrhythmia for which bronchodilators and other medications, including digoxin, were prescribed. On admission for an exacerbation of the pulmonary disease a month earlier, the thoracic roentgenogram displayed a small aneurysm of the descending thoracic aorta not unlike what was seen some nine months before (Fig. 1). The patient was scheduled for an outpatient CT scan of the thorax on the very day of the present admission.

He was afebrile. The pulse rate was 82 beats per minute and irregular; the blood pressure was 150/90 mm Hg in both arms; respirations were 18/min. He was oriented, alert, and in no acute distress. There were bilateral cataracts. The expiratory phase of respiration was prolonged, and decreased breath sounds and dullness to percussion were noted at the left base. The PMI of the heart was not palpable. The pulmonic second sound was loud and an S_4 was audible near the apex. There was a bruit over the right femoral artery; pulses were not palpable beyond the femoral arteries in either lower extremity. There was moderate abdominal distension but bowel sounds were audible. The neurological system was intact.

When he was first seen in the emergency room an electrocardiogram showed a wandering atrial pacemaker but no other abnormality. The serum electrolytes were sodium 135, chloride 92, and potassium 6.1 mEq/liter, ascribed to hemolysis of the sample. The BUN was 35, chloride 35 and creatinine 1.5 mg/dl. The hematocrit was in the 40's range. The serum digoxin level was 1.5 ng/ml; the serum theophylline level was 14.4 μg/ml.

A fecal impaction found on admission, though relieved by enema, resulted in diaphoresis ascribable to the onset of atrial fibrillation with a rapid ventricular response. On transfer of the patient to the ICU the rhythm converted spontaneously to normal sinus rhythm. A thoracic roentgenogram in the ICU showed a left pleural effusion but thoracentesis was deferred pending further observation.

The patient's condition remained stable during the first 24 hours but at the end of that time there was a sudden onset of dyspnea, diaphoresis, bilateral chest pain, and hypotension with a systolic blood pressure of 70 mm Hg and a diastolic detectable only by palpation. The cardiac monitor displayed a multifocal atrial tachycardia. Dullness over the left hemithorax increased and the trachea was deviated to the right. The entire left lung field was "whited out" on roentgenographic examination (Fig. 2A). A left thoracentesis yielded gross blood, and a chest tube was inserted and drained 800 ml of blood.



Figure 1. Thoracic roentgenogram made nine months before rupture shows the aneurysm of the descending thoracic aorta as an elongated vertical density below the knob.

When hemodynamic stability was restored with intravenous fluids and blood, an aortogram was made which showed a saccular aneurysm of the descending aorta approximately 5 cm in diameter (Fig. 2B). Intrathoracic bleeding and drainage from the chest tube suddenly increased during angiography. After tracheal intubation and transportation to the OR, a left thoracotomy revealed a ruptured saccular aneurysm of the descending aorta measuring 4.2 cm in its greatest diameter and 2.7 cm thick (Fig. 3). It consisted of atheromatous material, clot, patchy calcification and some thin muscular wall. It was excised and a dacron patch inserted in its place.

The postoperative course was uneventful for the first 24 hours but on the second hospital day the systemic blood pressure began to fall and could not be restored with intravenous

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Presented Sept. 8, 1982.

fluid, levarterenol, and dopamine. Acute tubular necrosis, ascribable in part to the 45 minutes of aortic cross-clamping necessary during surgery, ensued with further deterioration. When cardiac arrest occurred on the third hospital day efforts at resuscitation were unsuccessful.

The final diagnoses were atherosclerotic saccular aneurysm of the descending thoracic aorta with spontaneous rupture into left pleural cavity; chronic obstructive pulmonary disease; arteriosclerosis obliterans, lower extremities; sinus node dysfunction with paroxysmal atrial fibrillation.

CHARLES E. KOSSMANN, M.D.
(Professor Emeritus of Medicine)

If you will first consult the references, you will note that only three refer to the thoracic aorta; the others deal with the abdominal aorta. The reason for this is that there has not been much clinical or basic research going on in the last dec-

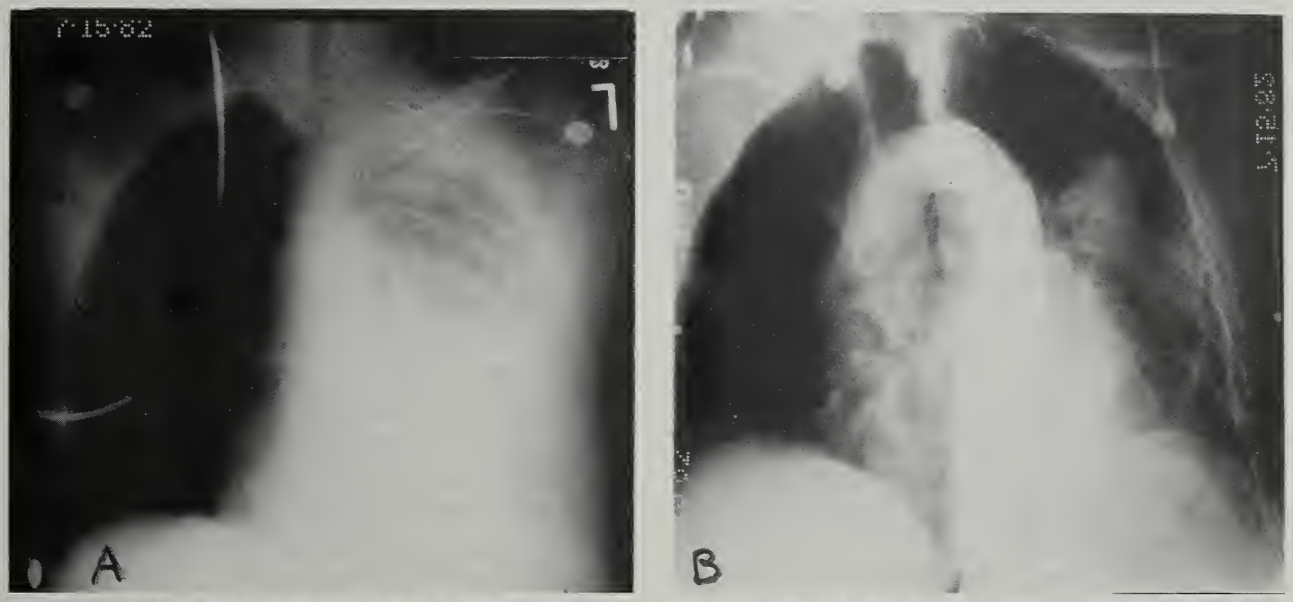


Figure 2. Thoracic roentgenogram. (A) PA view at the time of sudden onset of hypotension displaying a left hemothorax. (B) Oblique view of aortic angiogram made soon after A.

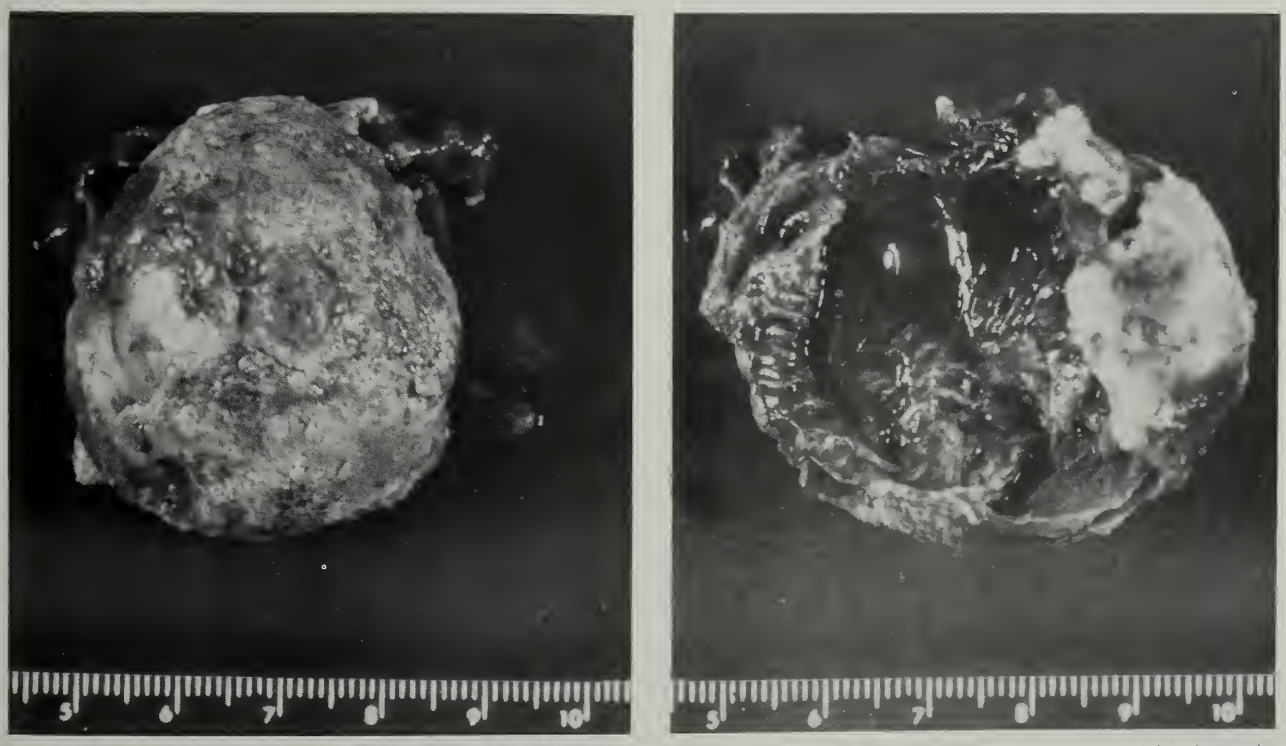


Figure 3. External (left) and internal (right) views of the excised aortic thoracic aneurysm. In the latter, the highlighted dark material at the top is clot; the light material on the right is calcified fibrous tissue.

ade relative to disease of the thoracic aorta. In a just completed Medlars search of the last five years, of 174 citations on the aorta only 12 were to the thoracic aorta and most of those were to traumatic disruption of that vessel. This branch of medicine has obviously been quite static in the last decade, with the exception of the management of aortic dissection.[1]

A word or two about the highlights of the case presented are pertinent to the later discussion of incidence. The male is most often the one who has this type of catastrophe. The patient was in his ninth decade; he was asymptomatic to within two months of his death. He had other diseases—pulmonary, cardiac, and peripheral vascular—the usual associations in this older age group, facts that must be taken into consideration whenever surgical intervention is considered. He had mild systolic hypertension, not unexpected in the older individual in whom elastic fibers in the media of arteries disappear with consequent loss of compliance. Finally, there was rupture of the weakened aortic wall with hemorrhage into the pleura, shock, and death despite successful removal and replacement of the dilated and ruptured lesion.

Definition and Classification

The word aneurysm comes from the Greek meaning widening. There are some entities to which this term is applied in medicine where it really doesn't apply, as we shall see. The classification shown in Table 1 is based on the anatomy of the lesion—that is the location and the form—and also the usual cause. The anatomy and cause do not necessarily relate to each other. The congenital sinus of Valsalva aneurysm or fistula will not concern us further today, nor does the annular-aortic ectasia, usually the result of medial necrosis. The aneurysms to be discussed today are fusiform, globular, or saccular, and though often syphilitic in origin in the past, they are now almost always due to atherosclerosis. The dissecting aneurysm is more appropriately designated aortic dissection because it is not necessarily widened, and because the basic lesion is medial necrosis with hemorrhage into that layer, which dissects it longitudinally from the other layers. It is often precipitated by hypertension.

TABLE 1

AORTIC ANEURYSMS

Anatomy	Causes
Sinus of Valsalva	Congenital
Annulo-aortic ectasia (Fusiform or globular, saccular)	Medial necrosis (Atherosclerosis, syphilis)
Dissecting hematoma	Medial necrosis, hypertension
AV fistula	Trauma, spontaneous
Pseudoaneurysm (false)	Trauma
Mycotic	Bacterium, fungus

The AV fistula, sometimes spoken of as an AV aneurysm, is most often due to trauma but may occur spontaneously. The pseudoaneurysm or false aneurysm, most often due to trauma, including decelerative trauma, refers to the leakage of blood out of the aorta or a large artery; the apparent widening is caused by a hematoma confined to the outside of the vessel lumen, either by the adventitia or by surrounding tissues. I have no idea how the aneurysm that results from a wall weakened by intramural infection came to be designated "mycotic." I suppose a pathologist who first observed the entity found a fungus in the wall, very rare now, and named it mycotic. Dr. Pate suggested to me that the designation stemmed from the mushroom-like appearance of the lesion. A bacterium is the usual offender; it is seen most often in bacterial endocarditis.

At this point I think it is important to mention the confusion of the terms rupture and dissection, as encountered in the literature. Dissection has a very specific meaning relative to the aorta; it is a longitudinal separation of the layers. It is believed to begin usually with a circumferential disruption of the intima, after which blood enters the media and dissects the vessel into two channels, the true and the false. There is often spontaneous reentry of the new channel into the original lumen through another rent in the intima distally. To add further confusion to the use of the terms, a dissecting hematoma may also rupture, often into the pericardium. What our patient today had was not dissection but simply rupture of an atherosclerotic saccular aneurysm.

Incidence

Atherosclerotic aortic aneurysms occur most often in the abdominal aorta below the renal arteries, with the second most frequent site being the arch, and the third the upper descending aorta just beyond the subclavian artery. Combined involvement of the lower thoracic and upper abdominal aorta is not uncommon. Today's lesion was at the approximate junction of the upper and middle thirds of the thoracic descending aorta.

TABLE 2

CITY OF MEMPHIS HOSPITAL
AORTIC ANEURYSM (441)*

ICD 9 CM	1979	1980	1981	Total
441.0 (diss an)	2	0	2	4
441.1 (th an, rupt)	1	0	1	2
441.2 (th an, no ment rupt)	6	2	1	9
441.3 (ab an, rupt)	0	0	0	0
441.4 (ab an, no ment rupt)	8	7	7	22
441.5 (an, NS site, rupt)	9	0	0	9
441.9 (an, NS site, no ment rupt)	7	1	0	8
	33	10	11	= 54

*Exclude syphilitic, 093.0, traumatic 901.0, 902.01.

Frequency of diagnosis of aneurysm at the City of Memphis Hospital in the years 1979-81 recorded in accordance with the ninth revision of the International Causes of Disease, Clinical Modification (ICD 9 CM). Syphilitic and traumatic aneurysms have been excluded.

Abbreviations: an, aneurysm; diss, dissecting; th, thoracic; rupt, ruptured; ment, mention; ab, abdominal; NS, not specified.

TABLE 3

MEMPHIS VAH
AORTIC ANEURYSM (441)*

ICD A-8	ICD 9 CM	1979	1980	1981	Total
(441.0)	441.0 (diss an)	3	2	1	6
	441.1 (th an, rupt)	–	0	1	1
(441.1)	441.2 (th an, no ment rupt)	3	12	3	18
	441.3 (ab an, rupt)	–	3	4	7
(441.2)	441.4 (ab an, no ment rupt)	46	9	34	89
	441.5 (an, NS site, rupt)	–	0	1	1
(441.9)	441.9 (an, NS site, no ment rupt)	6	4	5	15
		58	30	49 =	137

*Exclude syphilitic, 093.0, traumatic 901.0, 902.01.

Frequency of diagnosis of aortic aneurysms at the Memphis VAH in the years 1979-81. There is some inaccuracy of the incidence of rupture because in the eighth revision of the International List of Diseases Adapted (ICD A 8), used up to October 1980, there was no code number provided for ruptured aneurysm.

Abbreviations as in Table 2.

Although the most common cause of aneurysms these days is atherosclerosis, in the past it was syphilis, particularly in the ascending aorta. Syphilis is now disappearing as a cause, but in 1933 in a large cardiac clinic in a northeastern city, 17% of the patients had syphilitic heart disease with aortitis. Now it is rare to encounter a syphilitic aneurysm; at the City of Memphis Hospital only one was seen in the period 1979-81.

An aortic aneurysm is unusual before 60 years of age, with a progressive increase in frequency in the seventh decade and beyond. Our patient today was 87. Men are more often affected than women, the difference being anywhere from 2.4 to 9.6 depending on the series consulted; it is probably three or four times more common in men. When seen in a woman she is usually in the advanced age group. There seems to be a relative infrequency, particularly of the abdominal aneurysm, in the black race.

I was not very happy with the data on incidence that I found in the literature, so I decided I would find out for myself how many cases of aneurysm we have had in Memphis at the City of Memphis Hospital, the Memphis Veterans Administration Hospital, and the Baptist Memorial Hospital, which includes not only Baptist Central but also the Baptist East facility and the Lamar Rehabilitation Center. In a table for each hospital (Tables 2, 3, and 4), the code numbers used are those given in the clinical modification (CM) of the ninth revision of the International List of Diseases (ICD 9 CM).[2] The meaning of each code number is explained in the legend of Table 2. A ruptured thoracic aneurysm (th an rupt) is coded 441.1. When no mention has been made in the record of rupture (thoracic 441.2, abdominal 441.4), it seems safe to assume that rupture did not occur. The years reviewed, indicated in the vertical columns of each table, were 1979, 1980, and 1981. Syphilitic and traumatic aneurysms were excluded.

A few interesting facts are revealed by this analysis. At the City Hospital there was a total of 54 atherosclerotic thoracic and abdominal aneurysms, 11 of them thoracic; only two had

TABLE 4

BAPTIST MEMORIAL HOSPITALS
AORTIC ANEURYSM (441)*

ICD 9 CM	Jul-Dec 1979	1980	1981	Total
441.0 (diss an)	4	15	15	34
441.1 (th an, rupt)	2	7	3	12
441.2 (th an, no ment rupt)	10	18	16	44
441.3 (ab an, rupt)	7	10	12	29
441.4 (ab an, no ment rupt)	91	176	185	452
441.5 (an, NS site, rupt)	0	0	0	0
441.9 (an, NS site, no ment rupt)	8	10	17	35
	122	236	248	= 600

*Exclude syphilitic, 093.0, traumatic 901.0, 902.01.

Frequency of diagnosis of aortic aneurysm at the Baptist Memorial Hospitals in the 2.5 years, July 1979-December 1981.

Abbreviations as in Table 2.

ruptured, but nine others ruptured in 1979 in which the site was not mentioned. Considering the high incidence of hypertension in the predominantly black patient population of the hospital, it was noteworthy that only four dissecting hematomas had been seen. Only 22 abdominal aneurysms were admitted, none of them ruptured. When compared to the data obtained in the other hospitals, this figure might support the impression that abdominal aneurysms are less frequent in the black than in the white patient.

There was a problem with the codes at the VA Hospital. The record room didn't start to use the ninth revision of the ICD until October 1980. In the earlier months of that year the eighth revision (ICDA 8) was used; no rubrics for ruptured aneurysm were in that revision. The cases coded under ICDA 8 were added (Table 3) to the equivalent categories in ICD 9 CM, although some may, in truth, have ruptured without being so coded. There was only one ruptured thoracic aneurysm in the three years during which time seven abdominal aneurysms had ruptured. The considerable number of unruptured abdominal aneurysms was in contrast to what was found in the City Hospital, perhaps a reflection of the larger white population in the VAH.

The Baptist Memorial Hospital, the largest of the three, had as expected the largest number of cases in each category (Table 4). In 2.5 years there were only 12 ruptured thoracic aneurysms; those in which rupture was not mentioned totaled 44. Assuming they were not ruptured, this represents a 21% rupture rate of thoracic aneurysms, a rather surprisingly high figure. Again to be noted is the large number of abdominal aneurysms, 481, of which 29 (6.0%) had ruptured.

These 2.5 to 3 years of data from three hospitals can be summarized by just a few numbers. Dissecting aneurysms totaled 44; thoracic aneurysms 86 of which 15 (17.4%) ruptured; abdominal aneurysms totaled 563, of which 36 (6.4%) had ruptured.

In an effort to get some data on how common aortic aneurysms are, I found out how many patients came into the three hospitals who were over 65 years of age in the year 1981 (Table 5). Calculations revealed that only 0.12% of thoracic aneurysms and 1.17% of abdominal aneurysms occurred in that older hospital population. These figures are low compared to the data available in the literature. If codification was accurate, the numbers indicate that aortic aneurysm is an infrequent disease and rupture even more so.

TABLE 5

INCIDENCE DATA IN 1981 ON AORTIC ANEURYSMS IN THREE MEMPHIS HOSPITALS*

Admissions over 65 yrs of age	CMH 1,432	VAH 3,155	BMH 16,068	Total 20,655	Percent
Dissecting	2	1	15	18	0.09
Thoracic	2(1)	4(1)	19(3)	25(5)	0.12 (0.024)
Abdominal	7(0)	38(4)	197(12)	242(16)	1.17 (0.077)

*Spontaneous ruptures in parentheses.
Ruptured: 20% of th an, 6.6% of ab an.

Pathology

The morbid anatomy begins with an atheroma. Medial elastic fibers are lost with age throughout the arterial tree, which may be a factor, but basically an intimal atheroma begins the weakening process. It is interesting that in the abdominal aorta the posterior wall is affected dominantly. There are progressive stages of the atheromatous disease accompanied by medial thinning and weakening, calcification, and thrombosis. The mature saccular aneurysm has practically nothing of the original layers left in its wall. It is all fibrous tissue and sometimes clot, the latter a manifestation of an effort, apparently, to reinforce the thinning wall.

What about the pathogenesis? Why is the aneurysm so frequent in the abdominal aorta? There is really no good explanation, but one often quoted is that we are bipeds and our upright posture predisposes to it. On the other hand, induced aneurysms in the dog are most often abdominal, so that vertical posture cannot be the whole explanation. The stress of the reflected as well as the forward pulse wave on the lower abdominal aorta is also given as a reason.[3]

The intimal atheroma is primary, and it might be asked how it causes the medial atrophy. Pressure of the atheroma on the media with occlusion at vasa vasorum and impairment of diffusion from the lumen may be factors. Once dilatation begins it is self-perpetuating, as predicted by the law of Laplace. Of the several ways of formulating the law, the one that applies to the dilating vessel is that the tension is equal to the hydrostatic pressure times the radius over the thickness, or $T = p \times r/\delta$. The radius increases and the wall gets thinner as the aneurysm distends; the resulting increased tension will eventually

cause rupture unless there are some compensatory mechanisms such as considerable deposition of clot, uniform fibrosis and calcification, or both. Once an aneurysm starts, eventual rupture is almost inevitable in accordance with Laplace's law.

Signs and Symptoms

The aneurysm is essentially asymptomatic until it presses on nearby organs. In the thorax, the first manifestation might be a little fullness in the chest. If the lesion is in the ascending aorta there may be signs such as dullness, visible or palpable pulsation of the chest wall, tracheal tug and displacement, a systolic murmur, or a tambour-like A_2. In the arch or descending aorta there may be no symptoms or signs until imminent or actual rupture.

Other manifestations arise from organs on which the aneurysm presses. In order to understand these, I think all that has to be remembered is that in the anterior, middle, and posterior mediastinum and in the retroperitoneal space the aorta is in close apposition to many organs, pressure on which or hemmorhage into which will determine the symptoms. At the level of the fifth dorsal vertebra, it is close to the left atrium and its entering pulmonary veins, the trachea and large bronchi, the esophagus, the lungs, and both pleurae, and at a slightly higher level with the superior vena cava and left inominate vein. Knowing these relationships it becomes clear that the symptoms and signs may simulate a variety of syndromes. For example, if there is pressure on the trachea or bronchus, dyspnea, stridor, pulmonary atelectasis, and tracheal tug or displacement may be encountered. Esophageal pressure may cause dysphagia; today's patient had a little dysphagia and the roentgenogram did show some esophageal indentation by the aneurysm. Pressure on the recurrent laryngeal nerve may cause hoarseness. Compression of the superior vena cava can generate the superior vena cava syndrome, with edema of the upper part of the body and face. Rupture into the superior vena cava, with production of an AV fistula, will result in sudden heart failure and aortic insufficiency if the patient survives, with the murmurs characteristic of each lesion. Compression of the pulmonary artery can cause pulmonary hypertension; erosion into a lung will result in hemoptysis, usually massive; rupture into either pleural space will produce pain, dyspnea and hemorrhagic shock,[4] as in today's patient. The spine may be eroded, with consequent back pain.

When rupture occurs, there is an exaggeration of one or maybe several of the above. There is pain, shock, and sometimes death in a matter of minutes. Of the acute episodes that may be simulated in the chest, the first is pulmonary embolization. Myocardial infarction is a frequent differential consideration, as is hemothorax from any cause.

The abdominal aortic aneurysm will naturally produce other manifestations from pressure on or rupture into various adjacent organs. The lesion may cause no symptoms for years. There may be a pulsating mass in the abdomen, with a bruit and a pistol shot over it, but it is amazing how easy they are to miss, especially in obese individuals, or to be mistaken in a thin individual for something other than aneurysm. At least 10% of those that are diagnosed clinically as abdominal aneurysm turn out to be something else, such as intestinal carcinoma, pseudocyst of the pancreas, or simple aortic ectasia. In the older individual who is starting to get a little stooped, the aorta sometimes becomes tortuous enough to get a loop in it, easily interpreted as an aneurysm when the apparent dilatation is only an aorta partially bent on itself.

In the abdomen the aorta is quite close to the duodenum, the ileum, the pancreas, the peritoneal space, the inferior vena cava and the retroperitoneal space. Involvement of these may determine diverse manifestations as the aneurysm enlarges. Duodenal obstruction, aorta-duodenal fistula with intestinal hemorrhage, fistula into the inferior vena cava with edema and sudden onset of heart failure and a continuous murmur—all may complicate the expanding arterial lesion.

Rupture is heralded by severe pain just as in the chest. It sometimes is preceded by vague pain in the back lasting for days or even years before the dramatic episode occurs. If rupture occurs

TABLE 6

ATHEROSCLEROTIC ABDOMINAL ANEURYSM ASSOCIATED CONDITIONS[5]

Atherosclerotic heart disease	33%
Hypertension	26%
Peripheral vascular disease	20%
Cerebrovascular disease	9%
Diabetes mellitus	8%

into the peritoneum, exsanguination and shock ensue so rapidly the patient usually dies before getting medical help. Bleeding into the more restrictive retroperitoneal space is usually slower, and enough time may be available for salvage by operation.

The differential diagnosis revolves about some acute abdominal situation—peptic ulcer, pancreatitis, cholecystitis, or ureteral colic. A ruptured intervertebral disc and myocardial infarction must also be considered.

As noted earlier, there may be signs and symptoms of associated conditions. Table 6 relates to abdominal aneurysms[5] but there is no reason to believe the situation is very different with thoracic aneurysms. The associated conditions are atherosclerotic heart disease 33%, hypertension 36%, peripheral vascular disease 20%, cerebrovascular disease 9%, and diabetes 8%. These older people, sick with disease of multiple organs, are not going to tolerate long surgical procedures too well, especially if intraoperative bleeding is severe.

Diagnosis

The diagnosis can usually be made from symptoms and signs, but significant help can now be obtained from new modalities, including sonography, and radiographic techniques such as the plain film, angiography, digital subtraction angiography and computerized tomography.[6] Angiography is probably the best, but there are hazards such as aggravation of hemorrhage if rupture has already occurred. The major angiographic findings in 169 cases of abdominal aneurysm studied by Brewster and his associates[7] are shown in Table 7. I could not find any such study of thoracic aneurysms, but knowing the exact thoracic location and size, as in today's case, cannot help but be essential information for the surgeon.

Returning to abdominal aneurysms (Table 7), you will note that suprarenal extension occurred in 9 (5%). The renal arteries themselves were stenotic in 37 (22%), important to correct at operation. In 25 (17%), there were multiple renal arteries, some of which were stenotic. Associated aneurysms were found in the common or external iliac arteries in 69 (41%), and in the hypogastric, femoral, or popliteal in 26 (15%); there was associated occlusive disease in several areas, as noted in the table. Aortocranial occlusion is potentially hazardous.

Aneurysmectomies are long operations; there is often excessive blood loss and hypotension. With extracranial or intracranial vascular disease, the thoracic or abdominal aneurysm may be nicely repaired but the patient wakes up with a stroke, if he wakes up at all. The superior mesenteric artery or celiac axis was occluded in 17 (10%). This piece of information is important because in doing the abdominal aneurysmectomy the inferior mesenteric artery as a usual part of the aneurysm is sacrificed. If no superior mesenteric artery is present to take over its circulation, the large bowel will become infarcted. Lastly, note that an iliac or femoropopliteal artery was occluded, possibly indicating the need for a simultaneous bypass. Obviously, angiographic findings are most helpful in making the diagno-

TABLE 7

MAJOR ANGIOGRAPHIC FINDINGS IN 169 CASES OF ABDOMINAL ANEURYSM*

Finding	No. of Patients
Suprarenal extension	9 (5%)
Renal arteries	
Stenosis	37 (22%)
"Multiple"	28 (17%)
Associated aneurysm	
Common or external iliac	69 (41%)
Hypogastric, femoral or popliteal	26 (15%)
Associated occlusive disease	
Aortocranial	8 (5%)
Superior mesenteric artery or celiac axis	17 (10%)
Iliac	41 (24%)
Femoropopliteal	41 (24%)

*From Brewster et al.[7]

TABLE 8

RELATIVE VALUE OF DIAGNOSTIC METHODS (TENTATIVE)

	Aneurysm	False Aneurysm	Dissection	Rupture
Roentgenogram	++	+	+	+
Angiogram	++++	++++	++++	++++
Digital subtraction	+++	+++	++	+++
Sonogram (abdominal)	++++	++	±	−
CT scan	++++	−	−	++
Scintigraphy (flow studies)	++	+	−	−

sis, in determining the extent of the disease and the presence of arterial lesions elsewhere, and in deciding in advance the best operative procedure to be used.

Relative Value of Diagnostic Methods*

Table 8 is a sort of educated guess on the value of the presently available methods of looking at an aneurysm. The relative values of these diagnostic methods run from none (−) to great (++++). The table is tentative, and will undoubtedly need modification as data with the newer methods accumulate. What I have done is consider the diagnosis of aneurysm, false aneurysm, dissection, and rupture. Angiography is given a 4+ in the diagnosis of each because it is quite good for all of them and is really the "gold standard" by which other methods are evaluated. The plain roentgenogram is helpful, especially if there is mural calcification of the dilated vessel.[8] Digital subtraction angiography is probably good in the diagnosis of aneurysm and false aneurysm, less so for dissection. It probably helps in diagnosis of rupture, but at present there are problems with execution of the procedure. Sonography is useful for abdominal aneurysm, especially for following its rate of expansion over time, but it is much less useful for thoracic aneurysms. Computerized tomography is very good as a screen for aneurysm but not so good for the other categories in the table. Scintigraphy appears to be of use only in flow studies.

Treatment

The treatment now is surgical excision, with replacement by a synthetic prosthesis. The older methods of therapy, such as "wiring," wrapping with cellophane, or excision and replacement with a homograft, have all gone by the board. In accordance with the Laplace equation, antihypertensive therapy, especially if the blood pressure is elevated, could be of prophylactic or palliative usefulness, but no data are available on the long-term or short-term benefit of such pharmacologic management.

Deciding when to operate on an asymptomatic aneurysm, especially if multiple branches are involved, requires a careful weighing of all the factors—age of the patient, associated conditions, and size and location of the aneurysm. Observing the rate of growth by noninvasive means—plain x-ray film, sonography, CT scan—may help in timing the decision. When pressure on adjacent organs results in symptoms, consideration of surgery becomes urgent. If pain of unexplained origin begins in the thorax, abdomen, or back, impending or early rupture must be suspected and study for prompt surgical intervention begun at once. There is a school of thought that favors removal of all nonruptured aortic aneurysms below the arch as soon as recognized, provided there are no contraindications, because the operative mortality is exceedingly low. By contrast, aneurysms of the ascending aorta and arch require careful weighing of all variables involved before recommending operation. Available statistics on overall operative mortality[9] indicate that with a skilled team it is 0.5% for an abdominal aneurysm and 15% for all thoracic aneurysms. Once rupture has occurred, the chances of salvage fall well below 50%.

Today's patient had symptoms two months before his demise. It is likely they were so minor that they were ascribed to the chronic pulmonary disease from which he suffered or to some other cause. The lesson learned is that new or unusual pain, even in the presence of a relatively small aneurysm (this one was less than 5 cm in diameter), must be noted with a high index of suspicion. A pleural or peritoneal effusion should be tapped early. If found to be pure blood, without any obvious other cause, the next step must be immediate surgical exploration of the aneurysmal site.

*Dr. Ina Tonkin, associate professor of pediatrics and a dedicated cardiovascular roentgenologist, discussed this subject at this point and showed excellent examples of each method, but space did not permit publication of them in this report. Some of her presentation can be found in considerable detail in reference 8.

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EKG of the Month

W. BARTON CAMPBELL, M.D.

A 46-year-old woman had sudden onset of severe back pain with marked weakness in the lower legs. She was hospitalized elsewhere and found to have a compression fracture of the 4th lumbar vertebra. A laminectomy was carried out with cord decompression and she slowly regained leg strength. Chest x-ray showed diffuse osteopenia with compression fractures of the 4th, 6th, 8th and 9th thoracic vertebrae. Her urine was found to contain κ light chain (Bence Jones) protein, and bone marrow biopsy showed large numbers of plasma cells. Protein electrophoresis revealed a monoclonal spike and immunoelectrophoresis disclosed elevation of immunoglobulin G (IgG) to 9,166 mg/dl (normal 620 to 1,476 mg/dl). She was treated with cyclophosphamide (Cytoxan) and prednisone with a fall in IgG levels. One week prior to admission to St. Thomas Hospital she developed progressive fatigue and weakness which eventually brought her to the emergency room. An electrocardiogram was obtained (Fig. 1).

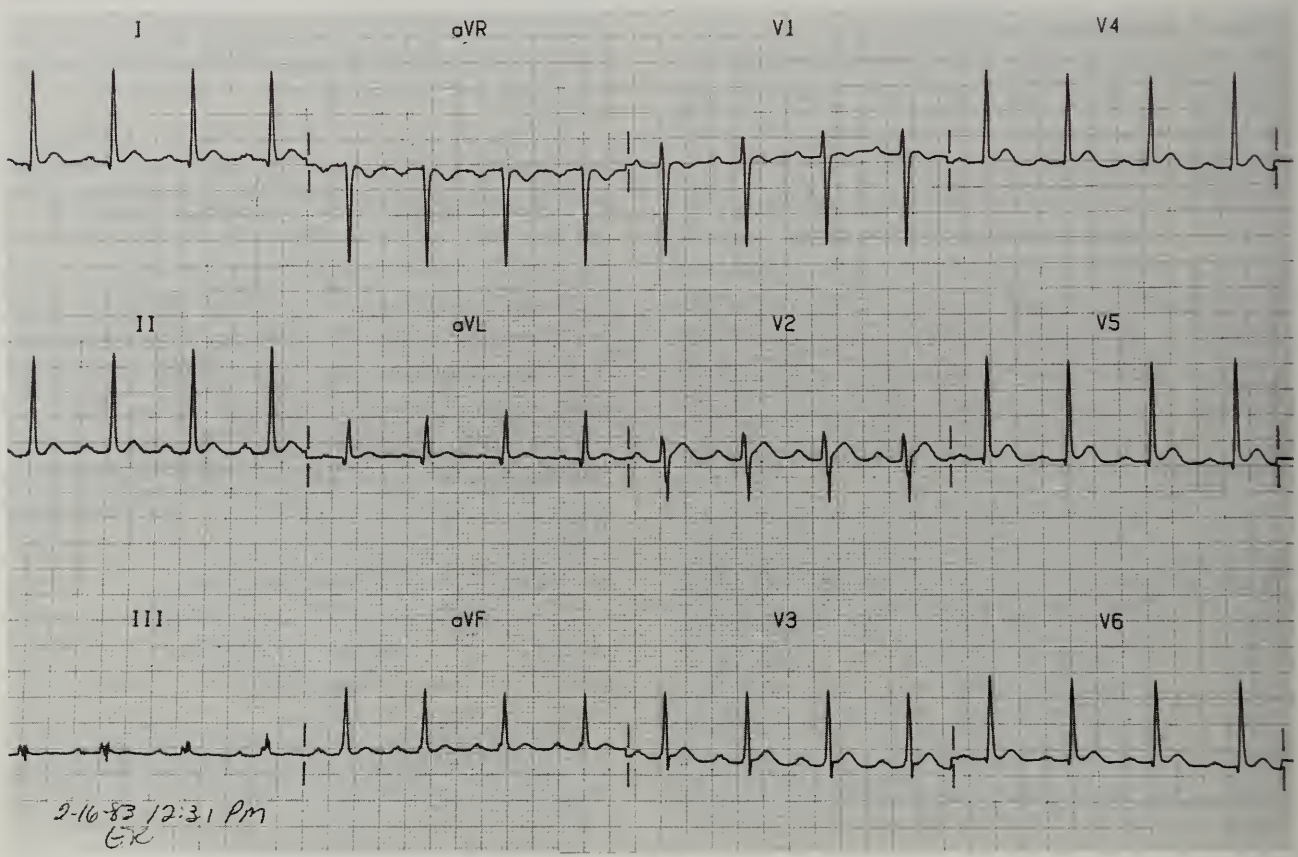


Figure 1

Discussion

The electrocardiogram shows sinus rhythm with a rate of 95/min. Small Q waves in lead I and aVL are 20 msec in duration, have an amplitude of only 2 mm and are considered a normal variant. The PR interval is prolonged at 0.24 seconds. (This is best seen in standard lead II.) The QT interval is short at 0.30 seconds and the interval to the apex of the T wave (QaT interval) is only 0.18 seconds. (This is measured in the lead having the tallest amplitude T wave; lead II in

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

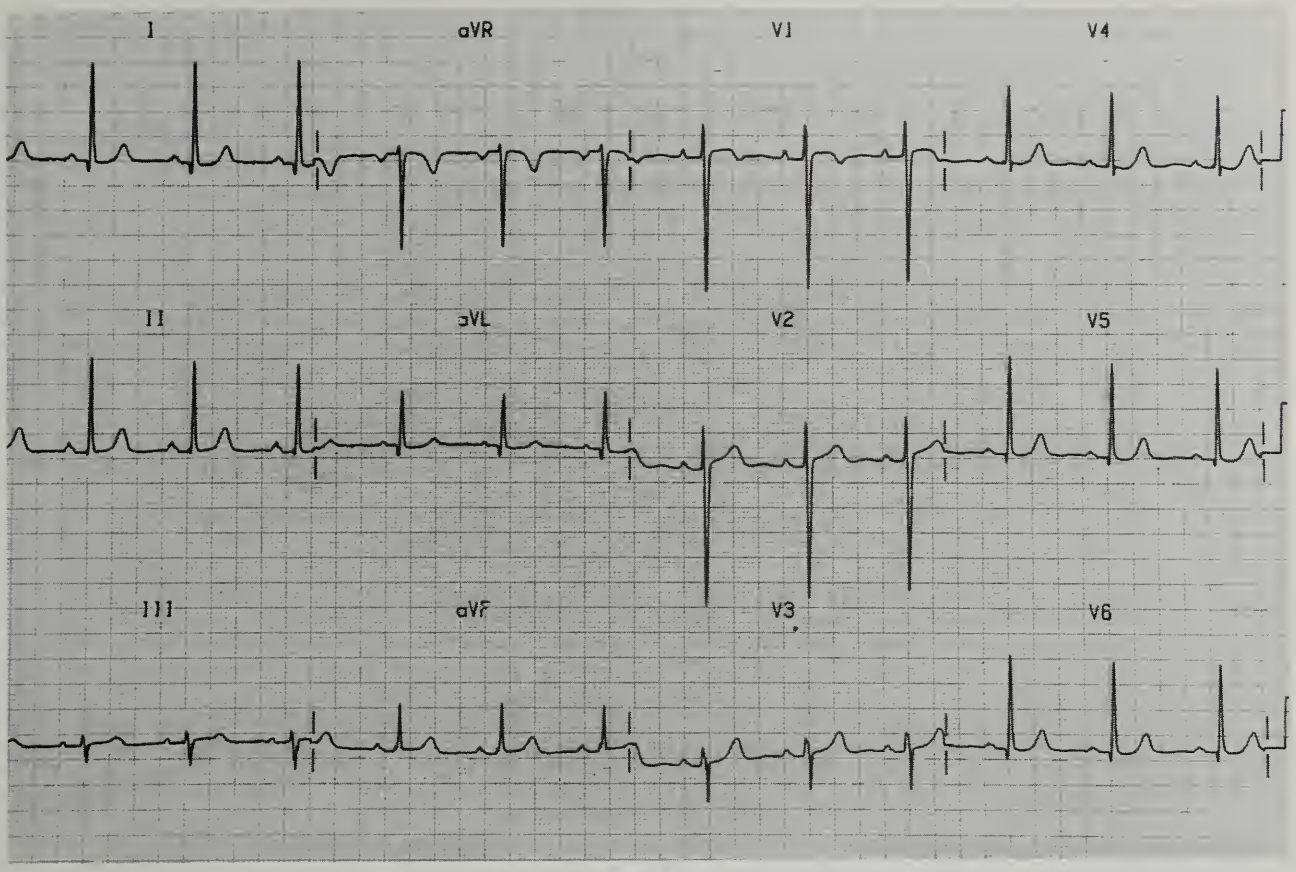


Figure 2

this tracing.) In adult women with a heart rate of 95/min the QT interval should be 0.34 seconds and the QaT interval 0.26 seconds.[1]

This patient was found to have a serum calcium of 17.8 mg/dl (normal 8.5 to 10.5 mg/dl). Increased extracellular calcium shortens myocardial recovery time due to a decrease in duration of the plateau phase (phase two) of the intracellular action potential,[2] which is responsible for the QT shortening noted in the electrocardiogram. With serum calciums above 16 mg/dl there may be progressive increase in T wave width. This will increase the QT interval toward a more normal duration.[3] The QT segments (interval between termination of QRS and onset of the T) will remain abbreviated.

Hypercalcemia prolongs atrioventricular (AV) conduction and first degree AV block (PR intervals in excess of 0.20 seconds) is common. Occasional patients with hypercalcemia may have second degree block.[4] Ectopy has been observed with experimental calcium infusion[5] but hypercalcemia in the usual clinical setting does not appear to be associated with increased automaticity.[2]

Hypercalcemia is a frequent clinical problem. Common causes include hyperparathyroidism, osseous metastases, multiple myeloma, sarcoidosis, hyperthyroidism, hypervitaminosis D and milk-alkali syndrome. When this patient was treated with isotonic sodium chloride infusion the calcium gradually fell to 8.8 mg/dl. A repeat electrocardiogram (Fig. 2) shows resolution of the first degree block with a PR interval of 0.18 seconds. The QT segment is significantly longer with a QaT of 0.30 seconds and QT of 0.40 seconds. The QRS voltages are increased, resulting in slightly increased T voltages.

CONCLUSION: First degree block and QT abbreviation due to hypercalcemia in the setting of IgG myeloma.

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Training in the Administration of Epinephrine in Anaphylaxis Now Available to EMTs and the Lay Public

JACK P. POWELL, M.D.

During the 1981-82 session of the Tennessee Legislative Assembly a bill was passed empowering the Division of Emergency Medical Services of the Tennessee Department of Public Health to teach emergency medical technicians (EMTs) and certain members of the lay public the technique of epinephrine injections for persons suffering the catastrophic effects of anaphylaxis.

The new law amends Tennessee Code Annotated, Section 53-5101, and reads as follows:

> The Department of Public Health shall include in emergency medical technician training a course in epinephrine injections for administration to those persons suffering from serious adverse reactions to insect stings. Additionally, the Department will, subject to the availability of volunteer practitioners, schedule such training for lay individuals eighteen years of age or over *with a demonstrable need* for training based on occupational or family circumstances. Possession of the drug shall be limited to those persons suffering from the adverse reaction and dosage shall be pre-measured.

This was a bipartisan bill, sponsored by Senator Carl R. Moore (D) and Representative Ruth C. Montgomery (R) and endorsed by the Tennessee Medical Association, and has been hailed as the model bill of its type in the United States.

Since passage of the bill, two modules have been developed by the Division of EMS. The first entitled "Epinephrine Training Program for Emergency Medical Technicians," is a three-hour module that will be given to current EMTs through recertification courses and inservice training programs, and also will be incorporated in the curriculum for new EMTs. The module contains a rather complete discussion of anaphylaxis, its physiology, causes, signs and symptoms, assessment, and actions to be taken. Epinephrine is discussed as to its actions, dosages, administration, and side effects. Practice time in actual injection techniques of the drug is also included.

The second module is entitled "Epinephrine Training Program for the General Populus of the State of Tennessee." It was developed for those members of the general lay public who have a demonstrable need for the training, i.e., law enforcement officers, park rangers, persons with family members with severe allergies, and persons dealing with large groups of people such as tour guides. This module will be offered through individual interested medical practitioners, law enforcement academies, the Department of Conservation, and local health departments. This module is one to two hours in length, and is basically an abbreviated version of the first without as much technical detail.

The EMT module has already been included in many in-service programs and has been incorporated in many EMT training courses. The module for the lay public has now been completed and is available for general dissemination. The availability of these modules and their use is yet another step in the betterment of prehospital care available to the people of Tennessee.

Any questions regarding the availability of training in the administration of epinephrine can be addressed to Division of EMS, Tennessee Department of Health and Environment, R. S. Gass State Office Building, 2nd Floor S., Nashville, TN 37216, or by calling the Division at (615) 741-7221.

From the Tennessee Department of Public Health, Nashville. Dr. Powell is medical director of the Division of Emergency Medical Services of TDPH.

Painless Thyroiditis With Hyperthyroidism

ALAN L. GRABER, M.D.

A 17-year-old male high school junior who participated in varsity football and basketball was seen in January, 1983 because of a 10-lb weight loss following football season during November and December, 1982. He had noted marked fatigability while playing basketball, and some tremulousness, insomnia, and heat intolerance. There was no change in food intake, and he had been in good general health otherwise. There was a history of hyperthyroidism in the paternal side of the family.

Physical examination revealed a hyperkinetic, thin young man with warm, moist skin, a fine tremor, and very brisk deep tendon reflexes. The pulse was 90/min; weight was 165.5 lb; blood pressure 130/50 mm Hg. The thyroid was symmetrical, firm, non-tender, about twice normal size, and contained no palpable nodules. The rest of the examination was normal. The serum T_4 thyroxine was 20.2 μg/dl (normal 4.5 to 12.4), T_3 triiodothyronine was 425 ng/dl (normal 80 to 180), and the 24-hour radioactive iodine uptake was 0.8%. Other routine laboratory studies were normal or negative.

Because of the low I-131 uptake, the patient was considered to have painless, or "silent," thyroiditis with hyperthyroidism. He was treated with prednisone, 20 mg daily. Three weeks later, the pulse was 72/min, weight was 171 lb, the thyroid gland was smaller, about one and a half times normal size, and he was less tremulous. The T_4 thyroxine had fallen to 12.3 μg/dl and the T_3 triiodothyronine to 28± ng/dl. Prednisone dosage was decreased to 15 mg daily. Three weeks later he felt well. The pulse was 72/min and weight was 174 lb; the thyroid was of normal size, and the patient clinically euthyroid. Since T_4 thyroxine was 12.3 μg/dl and T_3 triiodothyronine was 225 ng/dl, the prednisone dosage was tapered further.

Discussion

This patient had typical clinical findings of hyperthyroidism, and the diagnosis was confirmed by the elevated serum levels of thyroxine and triiodothyronine. The low I-131 uptake is the feature distinguishing the hyperthyroidism of thyroiditis from the more common Graves' disease, in which the I-131 uptake would be elevated. The other major cause of hyperthyroidism with elevated serum levels of thyroid hormones but depressed I-131 uptake is excessive intake of thyroid hormone, which was not a consideration in this case.

Biopsy findings in this condition show lymphocytic thyroiditis (Hashimoto's disease). The high levels of circulating thyroid hormones result from leakage of hormones into the blood due to injury to the thyroid follicle cells rather than to overproduction of thyroid hormone. Thyroglobulin antibodies and thyroid microsomal antibodies, thyroid-stimulating immunoglobulins, and levels of circulating thyroglobulin are not consistently abnormal or diagnostic. There is no pain or thyroid tenderness in this disease, and usually no antecedent history of viral infection or thyroid injury or inflammation. Indeed, the clinical features are usually those of mild hyperthyroidism, distinguishable from Graves' disease only by the low I-131 uptake.[1]

Painless lymphocytic thyroiditis accounts for 10% to 20% of all cases of hyperthyroidism. Since the hyperthyroidism is often mild and usually self-limited, asymptomatic patients require no therapy. Symptomatic hyperthyroidism of varying severity may occur, however, requiring some form of effective treatment. Propranolol, which decreased heart rate, palpitations, sweating, and other symptoms attributed to overactivity of the sympathetic nervous system, is often sufficient for symptomatic relief, but does not shorten the duration of hyperthyroidism, which is usually two to three months. In view of the pathophysiology of this condition, its natural history, and the low uptake of I-131, radioactive iodine therapy is useless. Propylthiouracil has little effect, since the hyperthyroidism is caused by release of preformed thyroid hormone from the thyroid gland, not excessive thyroid hormone synthesis. Salicylates, effective symptomatic therapy for painful

From St. Thomas Hospital, Nashville.

subacute thyroiditis, are not useful in this disease. Prednisone results in rapid return of serum thyroxine (T_4) and triiodothyronine (T_3) to normal levels within two weeks, while patients who have received either no treatment or propylthiouracil and/or propranolol often require at least eight weeks for the hyperthyroidism to resolve.[2]

Some patients go through a transient period of hypothyroidism, usually asymptomatic, before full spontaneous recovery, and in a minority of patients there is persistence of hypothyroidism and/or goiter, requiring permanent thyroid hormone treatment. Relapses of hyperthyroidism occur occasionally, and are not prevented by long-term thyroid hormone treatment.

In the patient with persistent or recurrent severe hyperthyroidism, thyroidectomy is necessary and effective.

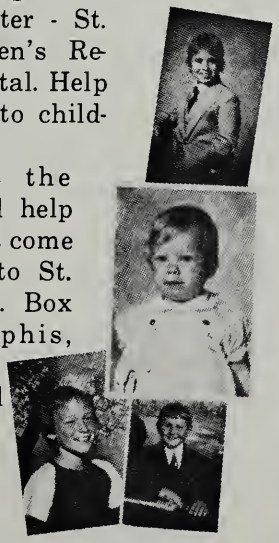
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*Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME; Philadelphia, Lea & Febiger, 1980, p. 1084.
Please see summary of product information on reverse page.

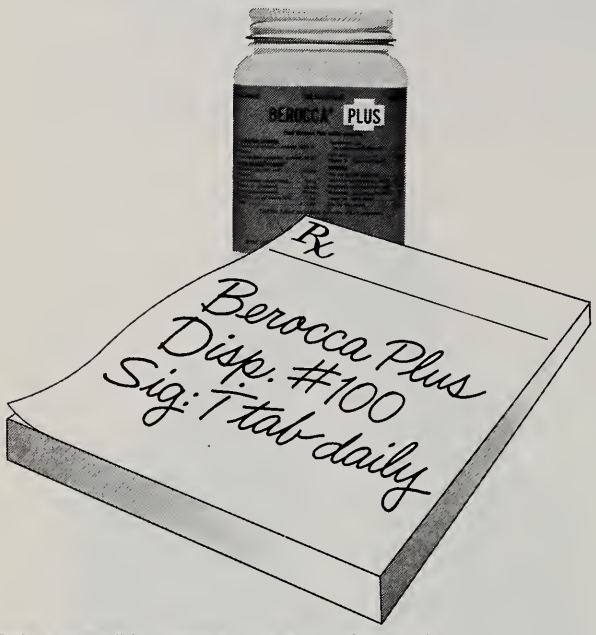
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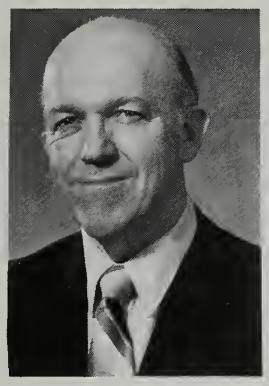
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president's page



NAT E. HYDER, JR.

Challenges Facing Medicine in the 1980s

"Changing Economic Realities" or "It's Not Business as Usual" are appropriate titles to the challenges I wish to discuss.

In recent years, the financing of health care needs has changed markedly, and the future appears to be even more complicated. No longer can physicians remove themselves from these financial deliberations. Decisions being made today will affect the way physicians will provide health care tomorrow.

In the face of these changes in competition between physicians and changes in the purchase of health care by patient, industry, and government, we physicians have to maintain a sense of integrity and a sense of quality. We must continue to care about people. It is a challenge to medicine's greatness to compete with groups that may neither have integrity nor offer quality.

Three forms of competition need to be considered:

1. Price Per Unit of Service (fee for service). Fees in this form of competition would be low, and it would be difficult to make up for these low fees by increasing patient load without sacrificing quality.
2. Fee Per Case. This form of competition resembles obstetrical deliveries and surgical procedures that traditionally have been by fee per case. This form of remuneration is being advocated by the federal government for federally funded hospital patients of all sorts, and termed as prospective payments, but it really would be prospective pricing and would greatly affect our practice.
3. Price Per Person Per Year (capitation, or pre-paid care). An example of capitation is the preferred provider organization (PPO). Pre-paid care is beneficial for the employer because of the low cost for service and low cost per case. One big advantage of pre-paid care is predictable costs, as opposed to the aggregate cost paid by most employers today, which is unpredictable. One problem with pre-paid care is that it requires a population of primarily healthy individuals to make it work.

One way for us to meet this challenge is for physicians to become involved in the building of health care coalitions. The Minnesota Coalition on Health Care Costs was launched by the Minnesota Medical Association with a board of directors representing health care providers, consumers, third party payors, educators, business, government and labor. Other groups involved in forming coalitions have been industry, hospitals and hospital corporations, health insurance industry, and labor. Of the many coalitions already formed, only slightly more than 50% have physician participation. If physicians wish to keep health care coalitions from working to their disadvantage, we must seek to ensure physician representation in them and actively participate in their management.

N E Hyder Jr MD

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MAY, 1983

editorials

A Plague on Us

In his opera *Tannhauser*, Richard Wagner recounts in music the age-old struggle between sacred and profane love, and man's preoccupation with the blandishments of the latter to the neglect of the former. While it should be plain that sacred love is far superior over the long term, man's eyes are blinded and his brain befuddled by the lust of the eyes and the pride of life, and he loses sight of everything but his hunger when Venusberg hails into view.

For my generation and preceding ones, sex meant male or female (now referred to properly, I am given to understand, as gender), and to "have sex" meant one had either maleness or femaleness. The act that word describes today was referred to by either a perfectly good Anglo-Saxon word, considered vulgar, or by any of several Latin-derived euphemisms, but never by any of them in polite society. Venus therefore gave her name—or perhaps more properly, her name was assigned—to diseases acquired through that unmentionable process, so that sexually transmitted diseases became venereal (Veneris being the Latin genitive of Venus), shortened to VD. They were seven in number, but even the occasional use of soap and water narrowed it to two except for medical purposes.

Now that sex is out in the open (in however way you wish) the old "VD" has been replaced by STD, but "a rose by any other name. . . ." In any event, they is now a bunch. The late Surgeon General Thomas Parran mounted a crusade in the mid-thirties to stamp out syphilis. His first step was a drive to make the term mentionable. It created a sensation, and though it took a generation to assuage the shock, he, along with those advocating sex education in school and church, has been accused in some circles as being responsible for the more recent sexual revolution by "giving the young ideas" (as if the young needed giving *any* ideas about sex. It puts me in mind of the joke about Adam's first words to Eve, "You'd better stand back, Baby, . . ." But I digress).

As I was saying, society has for the past two decades progressively extended the bounds of propriety, and one must wonder when (or if) the absolute limits will ever be reached. The now long defunct motion picture code prescribed that two people of the opposite sex could not be shown in the same bed, even if married and fully clothed. The other night, prime-time TV aired an ostensibly educational program on the herpes epidemic, entitled *Intimate Agony*, in which various unwed and unclad (though partially covered) couples were shown embedded in fond embrace. Hence, I might add, the herpes epidemic.

When I was a medical student, the treatment of syphilis was protracted, inconvenient, and painful, and its outcome questionable in any given case. The complications of syphilis were legion, ranging from aortic aneurysms to general paresis, and the treatment itself was not harm-

less, either. Antibiotics and attenuation of the organism have brought syphilis under some sort of control, even though it is not stamped out, and though the gonococcus is still thriving despite antibiotics, it does so with diminished virulence. With their decline, however, have come some new and thus far incurable viral infections. Though genital herpes is scarcely epidemic in the proportions suggested by the film, the potential, given current sexual mores, is certainly there, and it can have dreadful consequences. Less spectacular, but with possibly even graver consequences, is the papilloma virus infection, which, though usually self-limited, can lead to precancerous cervical condylomas. This virus appears currently more rampant than herpes genitalis. Viral hepatitis, sometimes type B, but more usually non-A non-B, can also be sexually transmitted.

One of today's medical mysteries is the acquired immunodeficiency syndrome (AIDS), which is primarily, though it now seems not exclusively, a plague of homosexual men. It can lead to a number of dire and bizarre consequences, and neither its cause nor its cure is presently apparent. Extragenital intercourse, both heterosexual and homosexual, leads to unusual manifestations of many of the sexually transmitted diseases.

It makes little difference whether one considers the story of Sodom and Gomorrah apocryphal or historic; the price of non-connubial bliss is high. Furthermore, whether one considers that God extracts it for sin, or nature imposes it for indiscretion, there seems to be an added price for homosexual gratification, no matter how much the modern church on the one hand or society on the other tries to excuse it.

Morals aside, that is just the way it is; with apologies to Omar, there is no indication that all our piety or wit (or science either), can lure the moving finger back to cancel half a line, or all our tears wash out a word of it.

J.B.T.

The Grand Design

My piano teacher once complained to my parents that I was too lazy to practice a piece over and over so as to polish it to perfection. Being the musical perfectionist he was, he did not understand that I was playing for enjoyment, and that since I had no notion of ever becoming a concert pianist, that enjoyment did not require perfection. Our aims were different. He shared with my "music appreciation" teacher a proclivity for dissecting both composition and performance that made me wonder if either of them really enjoyed music. It was only much later that I realized they were getting their satisfaction as much from the elegance of the design as from the sound it engendered, and could not be content with pleasing sound.

Beethoven never heard his later works performed at all, and it is clear now that considering the meagre talents and skill of the average performer until at least the latter part of the last century, few composers actually heard their larger works performed as they envisioned them. It is therefore obvious that regardless of sound and light, design plays a major role in the inception of great works of any sort.

Radio brought a vast repetoire to the public generally, and color photography and printing made art works available—but only in this century, and until very recently neither one did justice, except in the most superficial way, to the original. The young people in this day of high fidelity reproductions of art works and music, not to mention ready availability of live concerts and of ease of travel, can have no idea of how much their parents or grandparents treasured their brief encounters with "the real thing."

Our technology, with its canned music, instant images, and rapid travel, panders to a superficial existence. We can now find out a great deal more than we can possibly learn about more and more subjects. On the other hand, if we happen to probe deeply, we are apt to find that much of that mass of information is erroneous, having been transmitted to us by incompletely informed dilitantes or bigoted zealots masquerading as experts. Close inspection shows today's "investigative reporting" might be more accurately termed *creative* reporting; history as recorded often bears little resemblance to history as made.

On the television screen we are nightly shown scenes of history in the making, with glib commentators describing to us in detail what it is we are *really* seeing. They explain to us what speakers *really* said, instead of what *we thought* we heard them say, even though the commentator actually has no more notion than any of the other listeners as to what a speaker was *really thinking*. Furthermore none of us knows whether the speaker even said what he was really thinking.

But we hear the commentator last, and it is his words most of us are likely to remember.

Man, to quote the poet, is fearfully and wonderfully made. His brain has been designed to design. Its designs may entertain, transport, or enchant; they also manipulate. We are a sated people, enchanted by and in thrall to the output of the various media that drench our senses. That output is frequently designed less to inform than to persuade, and, ultimately, to control.

"The law of the Lord is perfect, converting the soul; the testimony of the Lord is pure, making wise the simple. The statutes of the Lord are right, rejoicing the heart; the commandment of the Lord is pure, enlightening the eyes." That is the grand design. Man's are something less.

J.B.T.

To Paradise

Sitting in the lobby of the Carlton Hotel in Johannesburg, South Africa, not long ago in a bemused, not to say benumbed, state, waiting to leave for the airport after a two-week somewhat hectic whirlwind tour of that country, and half listening to a lovely and talented young woman playing on a piano in the lobby bar, I suddenly realized her tune was one every deejay in California was playing when I was there about a year ago. I had not heard it since, and as I began recollecting the words, which the pianist was not singing, I remembered them to be the recounting of her conquests and exploits by a jaded jet setter as a horrible example to a young friend. "I've been to Paradise," she says, "but I've never been to me."

For a number of years now it has been considered bad form in many quarters even to consider South Africa at all, and since it is apparently assumed no one could possibly wish to go there, I could find no travel material relating to the country. What little information I had came from Mitchener's *The Covenant* and reports of friends who had been there to the effect that a visit was more than worthwhile. I was not sure what I expected to find, but it was not at all what I did find. Mitchener notwithstanding, the public has been deplorably misinformed.

South Africa is a country over a third the size of the United States and geographically nearly as diverse. It has none of the steaming tropical rain forests we generally associate with Africa—those are to the north. It does, though, have high forests and tropical mangrove swamps, and it also has more plant species than any other place on earth. The Cape Province in particular is a veritable flower garden. The Blue Train, a most luxurious five star hotel on wheels, speeds from sea level at cool lush Cape Town up over the 5,000 ft. Langeberge through that vast arid high plain, which, at 1,500 to 2,000 ft., is known as the Great Karoo (Hottentot for "the land of thirst"). Past the Drakenberg (Dragon Mountains) to the east, whose 12,000 ft. peaks separate it from Natal's tropical beaches warmed by the Indian Ocean's Mozambique current, the train wends its way onto the high veld, in the center of which, at 7,000 ft. lies Johannesburg, a modern metropolis of nearly three million people. Johannesburg owes its existence to the Witwatersrand Gold Fields, a huge deposit on which the city was built less than a hundred years ago, and from which each year 37 mines extract over 700 tons of gold worth more than ten billion dollars. To the southwest is the world's largest deposit of crystalline carbon—diamonds—and to the northeast, in the low veld, stands the world's first national park, named for the Transvaal's first president and the park's founder, Paul Kruger. It holds one of the world's largest collections of wild animals—game both big and small—and bird species without number. South Africa is a surfeit of beauty and grandeur, of which time permitted us only a small sample.

The cities we visited—Johannesburg, Cape Town, Durban, and Pretoria—are prosperous, and their people friendly. Like most big cities, Johannesburg is unsafe at night, as except for transients the city empties out at closing time into segregated suburbs. We have been constantly informed that the Blacks must leave at night for a chaos of shanties they have managed to put together with cardboard boxes and bits of tin. The truth is that no one at all lives in Johannesburg, and everyone leaves at night, the Blacks to Soweto, a community close by, a community of neat concrete-block houses, which, though not luxurious, are far from squalid. Since *The Covenant*, from which most Americans have learned about South Africa, was written (it was first printed in 1980 and the research done in the two previous years), many of the inequities mentioned in it have been rectified, contrary to what the press would have us believe. It is now possible for Blacks to own their Soweto homes permanently, and many of those small homes are surrounded by flower beds, and vegetable gardens.

Officially segregated into White, Black, and Colored (which includes large numbers of Indians) the city's business, hotel, and dining areas are increasingly classified "International," in which *apartheid* (segregation) does not apply. In government buildings almost alone does one still see facilities labeled "European" and "Non-European," and the number of bars and restaurants that are not "fully licensed" is dwindling rapidly.

Health care facilities and personnel are second to none, though they are in short supply. This they share with most of the world, and there are indications that as our own demands for health care continue to increase, and funds to decrease, as they are now we soon shall also be. The director of the 1,200 bed modern Tygerberg Hospital in Cape Town placed South Africa somewhere between the Western and the developing countries—not in quality, but in ability to deliver health care. Malnutrition plagues the Black population, and tuberculosis is rampant. A pediatrician deplored the concentration by the health authorities on hospital facilities to the neglect of well baby clinics in the rural areas, whereas a specialist in infectious diseases commented that if this were not the case, it would be impossible to care for the large number of open, advanced cases of tuberculosis and other serious illnesses of the populace. Malaria is again increasing in the low veld, and cholera is marching down the coast through Natal, as well as the Transkei and Siskei, home of the Xhosa tribe. Though with modern therapy mortality from cholera is low, morbidity is high.

The African continent is in the throes of a protracted drought cycle, and the Transvaal's maize crop, on which the entire continent depends, is drying up. It is now summer in South Africa, traditionally the Transvaal's wet season, and autumn is approaching. Rain this summer has been minimal, and from the window of the Blue Train it is apparent that the maize plants are stunted and often withering. The desert is advancing eastward, and game animals are slowly dying. All this adds to already extant tensions.

The South African populace, as the American, is a complex melange. The Blacks—primarily Zulu, Xhosa, Bushman and Hottentot—form the vast majority. They consider the country theirs by right, as the American Indians do this one. One tenth of the population of about thirty million is white—primarily English in the Cape Province and Natal to the south, and Afrikaaner in the northern Transvaal and Orange Province. Caught between Black and White are the Colored, among the country's most industrious and talented people, whom neither Blacks nor Whites claim nor want. Though many of the younger English are emigrating, feeling they have no future in South Africa, many believe otherwise and remain, and the primarily Dutch Afrikaaner is firmly planted.

"You see what 'they' want you to see," has been said of every tour. Certainly one is always limited by time, but except behind the Iron Curtain "they" do not police the tourist's actions. Various members of our group spoke in aggregate with a wide variety of individuals, Black, White, and Colored, and from them we could piece together some reasonably accurate notions about what South Africa thinks and feels. We came away well aware that South Africa has serious problems, and that our comprehension of them is superficial at best. They are not too different from our own, and probably about as close to a solution. Whatever their problems, we came away convinced that they differ substantially from what is reported by the biased sources from which the American public receives its information. The situation is far more complex than mere Black, White, and Colored. There are tribal animosities among the Blacks, and tensions between English and Afrikaaner. The Colored are merely trapped. *The Covenant* is generally considered accurate as far as it goes, if occasionally biased, but one gets the impression that a clear understanding of the situation is likely not possible at all; indeed, it is quite fluid. Regardless of how disparate their other wishes, Blacks and Whites seem generally united in their desire to keep Communism out.

God put Adam in a glorious garden that watered itself with streams and mists. He gave Adam all the animals, and ultimately Eve. With sin came brambles, drought, storms, and earthquakes; the gentle animals turned carniverous and destructive, and Adam's breed covetous, rapacious, and murderous. It is easy to look from the window of an air-conditioned bus or train and see Paradise, particularly if it is viewed with "a loaf of bread, a jug of wine, and Thou beside me in the wilderness. . . ." As with a lot of other things, though, familiarity with what on first acquaintance appears to be Paradise breeds something other than ecstasy, as the lady in the above quoted song found out. Cape Town, and indeed the Cape generally, must be one of the loveliest spots on earth, with its voluptuous climate, luxurient blossoms, and exuberant foilage, all set

against the majesty of Table Mountain and the narrow jagged ranges that separate the Cape's fertile valleys. Those valleys and hillsides, so like Middle Tennessee, are ideal for vineyards, and one can view all of this splendor while sipping some of the finest and at the same time least expensive wine the world produces. It is therefore hard looking away from such a delight to the eyes, and finding that the angel with the flaming sword does indeed still guard the gates, and that mankind remains on tiptoe outside Paradise looking in.

Nevertheless, the Cape is a closer place to it than most.

J.B.T.

in memoriam

O. H. Clements, age 74. Died March 4, 1983. Graduate of Medical College of Georgia. Member of Chattanooga-Hamilton County Medical Society.

George K. Henshall, Jr., age 68. Died February 12, 1983. Graduate of Tulane University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Robert D. Hollowell, age 83. Died November 20, 1982. Graduate of University of Tennessee College of Medicine. Member of Rutherford County/Stones River Academy of Medicine.

Tim Joseph Manson, age 72. Died March 1, 1983. Graduate of Columbia University College of Physicians and Surgeons. Member of Chattanooga-Hamilton County Medical Society.

Ernest Allen Turpin, Jr., age 58. Died March 3, 1983. Graduate of Albany Medical College. Member of Sullivan-Johnson County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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Dale B. Elmore, M.D., Maryville
Fred T. Farra, M.D., Maryville
John V. Webb, M.D., Maryville

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY
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Susan K. McGuire, M.D., Chattanooga

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Wood M. Deming, M.D., Jackson

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Mark C. Strickland, M.D., Memphis

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William Kevin Bailey, Memphis
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Ray W. Mettetal, Jr., M.D., Franklin

TMA Members Receive AMA Physician's Recognition Award

Thirty-two TMA members qualified for the AMA Physician's Recognition Award during February 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

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Sinesio Z. Aportela, M.D., Chattanooga
Harvey W. Bender, M.D., Nashville
William D. Burton, M.D., Memphis
Jill F. Chambers, M.D., Nashville
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John K. Duckworth, M.D., Memphis
William F. Encke, M.D., Franklin
George L. Gee, Jr., M.D., Knoxville
Robert M. Glasgow, M.D., Bristol
Rodger C. Haggitt, M.D., Memphis
Charles I. Huddleston, M.D., Knoxville
Arthur E. Jacobs, M.D., Memphis
Charles W. Kimsey, M.D., Chattanooga
Robert M. Kisabeth, M.D., Memphis
Ira E. Lew, M.D., Oak Ridge
Thurman D. McKinney, M.D., Nashville
Thomas W. Meriwether, III, M.D., Memphis
Robert L. Neaderthal, M.D., Nashville
John E. Neumann, Sr., M.D., Paris
James P. O'Leary, M.D., Nashville
Edgar H. Pierce, Jr., M.D., Nashville
Michael L. Pool, M.D., Knoxville
Mary L. P. Schultz, M.D., Nashville
Robert B. Snyder, M.D., Nashville
Arthur N. Sollee, Jr., M.D., Memphis
William P. Stallworth, M.D., Knoxville
Nat H. Swann, Jr., M.D., Chattanooga
Thomas B. Zerfoss, Jr., M.D., Nashville

personal news

Henry Foster, M.D., Nashville, has been named 1983 Man of the Year by the Music City chapter of the March of Dimes Birth Defects Foundation.

Phillip Hayes, M.D., Dickson, has been elected chairman of the Tennessee Wildlife Resources Commission, the governing body of the Tennessee Wildlife Resources Agency.

Bob T. Souder, M.D., has been elected chief of staff at Parkway Hospital in Jackson.

The following TMA members have been elected to Fellowship in the American Academy of Orthopedic Surgeons: *Richard A. Bagby, Jr., M.D.,* Winchester; *M. Craig Ferrell, M.D.,* Franklin; *John M. Jackson, M.D.,* Cookeville; *O. Tom Johns, M.D.,* Murfreesboro; *Thomas E. Moses, M.D.,* Chattanooga.

national news

From the AMA's Office in Washington, D.C.

SSS Revisions Damaging to Health Care

Congress raced through legislation this month designed to rescue the nation's Social Security system from bankruptcy and insure its solvency into the 21st century. The bill was sent to President Reagan for his signature before the Easter recess.

Attached to the Social Security Act of 1983 are measures that will heavily impinge upon the nation's health care system. The bill contains provisions to hold down the cost of Medicare payments to hospitals through a prospective payment plan based on diagnosis-related groups (DRGs). Hospitals would be paid on the basis of 467 DRGs regardless of the costs actually incurred in treating patients.

Under the bill approved by Congress:

- DRG payments would be phased in over three years, beginning with the hospital's first cost reporting period after Oct. 1, 1983. In the first year, 25% of the payment would be based on DRG rates and 75% on the hospital's cost base. The percentage of the payment based on DRGs would gradually increase until it reached 100% in the fourth year.
- In the first year, the DRG portion of the payment would be a regional rate. A rural and an urban rate would be calculated for each of nine regions. In the second and third years, the DRG portion would be a blend of national and regional rates and by the fourth year, the 18 regional rates would give way to two national rates—one urban, one rural.
- Rates in 1984 and 1985 would be adjusted by the market-basket index of hospital costs plus 1% but they would be reduced to the extent this resulted in payments exceeding those that would have applied under the Tax Equity and Fiscal Responsibility Act targets.
- Beginning in 1986, the increase factor would be determined by the Secretary of HHS and reviewed by a 15-member commission appointed by the Office of Technology Assessment. The commission is to include representatives of a wide range of groups, including new technology and treatments; the commission is to recommend changes in the recalibration of the DRG classifications.
- Direct medical education expenses would continue to be paid on a cost basis and the current Section 223 adjustment for indirect medical education expenses would be doubled in the DRG system.
- Capital costs incurred before the system takes effect will continue to be reimbursed on a reasonable cost basis until Oct. 1, 1986. New capital costs may or may not be paid on a reasonable cost basis. States would be required to have Section 1122 review systems and Medicare reimbursement for new capital costs would be conditioned on 1122 approval. The maximum threshold the state may use for requiring an 1122 review is increased from $100,000 to $600,000.
- Return on equity for proprietary hospitals would be reduced.
- Certain types of institutions would be exempt from the DRG system.
- From now until Oct. 1, 1983, hospitals are required to contract with a PRO to monitor utilization if there is a PRO in the area. After Oct. 1, the hospital is required to contract with a PRO and cannot be paid by Medicare if a PRO review is not performed. Intermediaries will be allowed to participate in the PRO program by Oct. 1, 1984 at the latest.
- State payment systems covering all payors would be encouraged through waivers if the state system would cost Medicare no more than the federal DRG system.
- HHS is to report in 1985 on the "advisability and feasibility" of applying DRGs to physician charges for hospital services and is to recommend legislation to apply DRGs to physicians.

Further Federal Fiscal Fiddling

President Reagan has sent his "Health Incentives Reform" package to Congress, warning that "because of the coming shortage in the Medicare Trust Fund, prompt action is particularly important."

The package of five bills contained a series of recommendations that administration officials have been discussing in public for several months. An outline of most was contained in the fiscal 1984 budget submitted to Congress in January.

The President said his health care proposals, including a one-year freeze on Medicare payments to physicians and a prospective payment system for hospitals, would save more than $4.2 billion in the next fiscal year. He said $2.3 billion would be saved from a

proposal to tax employees on health insurance premiums paid by employers, $17 billion would be saved by trimming Medicare benefits and by increasing the amount paid by patients, and $250 million would be saved by reducing the anticipated growth of Medicaid.

"Health care costs are climbing so fast they may soon threaten the quality of care and access to care which Americans enjoy," Reagan said. He commented that rising health care costs are a problem that affect all levels of society.

Reagan's message to Congress contained five specific pieces of legislation.

Following are brief summaries:

- Medicare Catastrophic Hospital Costs Protection Act. This measure is designed to improve coverage for lengthy, expensive hospitalizations and to introduce a coinsurance provision for the initial days of hospitalization. Under terms of the bill, Medicare reimbursement would be available for unlimited days of hospitalization. At the same time, however, the bill would impose coinsurance for a maximum of 60 days a year (8% of the inpatient hospital deductible for the 2nd through 15th day of an illness and 5% thereafter). The bill also limits to two the number of inpatient hospital deductibles that could be imposed annually and reduces the skilled nursing facility coinsurance rate to 5% from 12.5% of the inpatient hospital deductible.
- Medicare Prospective Payment Rates Act. The bill would establish a system of prospectively determined rates specifically related to the patient's condition. Rates would be set for each of 467 diagnosis-related groups. Capital expenditures and medical education costs would be excluded at first from the calculation of basic payments and reimbursed separately. Differences in area wage rates would be taken into account, and additional payments would be made for unusual cases involving lengthy hospital stays.
- Health Cost Containment Tax Act. The bill would limit tax-free health benefits paid by an employer to $175 monthly for family coverages and $70 for individual coverages, with the amounts indexed in relationship to the consumer price index. Employer contributions above those amounts would be included in the employee's income and taxed (income and Social Security) accordingly. "Elaborate health benefits funded with tax-free, employer-paid contributions are inflationary," the President said. "They insulate consumers, providers, and insurers from the cost consequences of health care decisions."
- Medicare Voucher Act. This would allow Medicare beneficiaries to use their Medicare benefits to enroll in a variety of private health plans. Medicare would contribute an amount equal to 95% of what it would have cost to care for the beneficiary if he or she had chosen traditional Medicare coverage. If a beneficiary selects a private health plan with a premium lower than Medicare's contribution, the beneficiary would be eligible for a cash rebate from the private plan. If the private coverage costs more than Medicare's contribution, the beneficiary would have to pay the difference.
- Health Care Financing Amendments of 1983. This bill contains a variety of provisions, including the controversial one to freeze Medicare customary and prevailing charges for physician services at 1983 levels.

The legislation would freeze the Part B premium at the current level of $12.20 per month for the remainder of 1983, foregoing a previously announced increase to $13.50 in July. In January of 1984, the Part B premium would be set at 25% of program costs for aged beneficiaries for that calendar year.

During the next four years, the premium would be increased 2.5 percentage points each year, reaching 35% of the program costs for the elderly in January, 1988. After that time, the premium for each calendar year would be set at 35% of program costs for the elderly for that year.

The President noted that when Medicare began, Congress envisioned that the elderly would bear 50% of the Part B costs and the law initially required that these costs be financed equally by tax revenues and Part B benficiaries.

Reagan's proposal also calls for indexing the Part B deductible in January of each year, based on annual changes in the Medicare economic index.

Another provision would require states to impose nominal copayments on all Medicaid beneficiaries for hospital, physician, clinic, and outpatient department services.

The President's message emphasized that the legislative package "reflects our most thoughtful effort to address and reform the basic economic incentives that operate in the health care sector.

"Our need to constrain the growth of our national spending for health care in the interest of a healthy and stable economy is urgent," he said. "Regulatory approaches to health care cost containment tried previously have proven ineffective and sometimes counterproductive to this goal."

Physician Charge Freeze Anticipated

The Reagan administration's proposal to freeze physician reimbursement levels under Medicare's "reasonable charge" system drew sharp criticism from the AMA.

"A freeze is especially unfair in light of continued cost increases that physicians must face in their practice," AMA Executive Vice President James H. Sammons, M.D., told the House of Representatives Task Force on Entitlements.

"Is the federal government now going to pay 1983 prices to all suppliers in 1984?" he asked. The answer is obviously no.

"We believe that it is unfair to freeze the costs of one sector of the economy while not asking . . . other professionals to accept a freeze and while allowing prices paid to other suppliers to rise," he continued.

Dr. Sammons noted that the number of patients without health insurance coverage is increasing because of the current recession and emphasized, "Physicians all over the country are treating these patients free or for greatly reduced fees." More than 40 medical societies have organized programs to assure care to the needy, he said.

The AMA official also pointed out that while 91%

of all physicians accept some Medicare claims on assignment, just over half of all Medicare claims are on an assigned basis.

"The primary reasons why so few claims are accepted on assignment are administrative deterrents, paperwork, and inadequate reimbursement levels," he said.

"The result of the further reductions proposed by freezing any reimbursement increase would be a further disincentive to acceptance of Medicare assignments." This, he said, could result in increased costs to be paid by patients.

Proposed Minimal Hospital Standands Imperil Public

The American Medical Association has criticized the proposed minimum conditions that hospitals must meet to participate in Medicare and Medicaid if they are not accredited by the Joint Commission on the Acreditation of Hospitals (JCAH).

"We are concerned that certain elements necessary to assure quality have been overlooked in revising the conditions," AMA Executive Vice President James H. Sammons, M.D., said in a letter to Carolyne K. Davis, Ph.D., administrator of the Health Care Financing Administration (HCFA).

The proposal fails to recognize the importance of medical supervision and direction of patient care in acute care general hospitals, Dr. Sammons said.

The use of the term "physician" came under closest scrutiny. The proposed conditions would use the term to include dentists, podiatrists, optometrists, and chiropractors, in addition to doctors of medicine and osteopathy.

"The AMA strongly opposes this definition. Such a broad definition would drastically lower the quality of patient care," according to the Association's comments on the proposed rule that was published in the *Federal Register*.

The provision should be rewritten to indicate that patients may be admitted only by a fully licensed physician and must be under the supervision of an MD or DO in accordance with medical staff bylaws, the AMA recommended.

HCFA has announced that the revised conditions would cover only 1,500 small rural hospitals with less than 10% of the nation's acute care beds.

The proposal assumes that hospitals currently seeking JCAH accreditation will continue to seek and receive approval from that voluntary, private-sector organization.

The proposed conditions are intended to establish only minimum standards that a hospital should meet. In the Association's view, those minimum standards are too minimal. They would fail to create adequate standards for a small or rural hospital and would be even more inadequate for a modern metropolitan medical center, the AMA said in its comments.

"Given the significant adverse impact that the proposed rule could have, and the fact that there is no urgency to establish new conditions, it should be withdrawn," the 44-page document said.

The proposal would elevate current "standards" for surgical care, anesthesia rehabilitation, respiratory care, and infection control to the level of "conditions" of participation in Medicare and Medicaid.

Of these new conditions, all but infection control would be categorized as an optional hospital service. Optional services would also include nuclear medicine services, outpatient services, and emergency services.

All hospitals would be required to meet the conditions for certain basic functions including quality assurance, medical staff, nursing services, pharmaceutical services, radiologic services, laboratories, food and dietetic services, utilization review, physical environment, and infection control.

The proposed revision adds new conditions for nuclear medicine and quality assurance, while deleting current conditions for medical library services and social work services.

The existing conditions of participation have been in existence since 1966. One requirement in the current conditions not carried forward in the proposal states that the medical staff is to attempt to secure autopsies "in all cases of unusual deaths, and of medical-legal and educational interest." The current standard goes on to recommend that a minimum of 20% of all terminal cases be autopsied.

The AMA recommended incorporation of the existing autopsy standard, with a change to indicate that a physician performing an autopsy must be a fully licensed MD or DO.

AMA Opposes Anti-Abortion Amendment

The American Medical Association has opposed Senate Joint Resolution 3 which would amend the U.S. Constitution to allow federal and state governments to place restrictions on or prohibit abortions. Despite AMA's opposition, the Senate Judiciary Constitution Subcommittee approved the amendment which would reverse the Supreme Court decision legalizing abortion.

In an early March statement to the subcommittee chaired by Senator Orrin Hatch (R-UT), the Association pointed out its concern with such legislation is that women could potentially be "denied a necessary medical procedure. Abortion is a recognized medical procedure. The medical indications for abortions are numerous including ectopic pregnancy, incomplete spontaneous abortion (miscarriage), malignant embryo, cardiovascular conditions of the mother, and the use of prescription drugs that are essential to the mother that may have serious adverse effects on the fetus. The consequences of not having an abortion when these indications are present can be grave, even fatal."

The statement concluded: "If Senate Joint Resolution 3 is adopted, we are gravely concerned that women may be denied necessary medical care. We are also concerned about the physical and mental consequences that may be suffered by women who resort to

illegal abortions. The precedent for and the possibility of improper governmental interference into medical practice by singling out a medical procedure for prohibition or restriction is inappropriate. The interference in the relationship between a woman and her physician that may result from this amendment causes us great concern."

The subcommittee ruled 3 to 0 in favor of the amendment to overrule the Supreme Court. The amendment faces a tough fight in the Senate and the House this year.

Court Upholds Meddlesome Regs

The American Academy of Pediatrics' (AAP) request for a temporary restraining order of regulations on the treatment of severely handicapped newborns has been denied by the federal court in the District of Columbia.

The court ruled that AAP had not demonstrated that irrevocable harm would be done if the rule went into effect in late March.

However, the court has scheduled a hearing on April 8 to hear arguments on the merits of the rule.

James S. Strain, M.D., AAP president, said the rules could result in medically wrong bedside decisions for handicapped infants. Dr. Strain said federal agencies should not be involved in such issues, because federal officials "are not equipped medically or in any other way to really deal with the decisions of life or death matters in newborns."

"We feel that the decisions that might be forced on the doctor in that situation might very well be harmful rather than in the best interest of the child," he said.

Commenting on the required notices and the HHS hotline, Dr. Strain said, "that is not an appropriate thing to have in an intensive care newborn nursery where parents are under a great deal of stress anyway."

"A parent of another child, an aide, nurse, social worker, or janitor—anybody who in his estimation believes that the child is not getting appropriate care—can report that to the hotline. That would set a process of investigation in motion that would involve nonmedical people in those decisions."

Dr. Strain pointed out that physicians do not want to be in the position of having to decide alone how to deal with life-threatening, handicapping conditions. Most hospitals have a review and ethics committee for this purpose.

"The decision-making process is a slow, deliberate one that involves a lot of people, but it involves people that are knowledgeable about that particular situation and child. You can't set down guidelines that are going to fit every child and situation," Dr. Strain commented.

"This has to be done at the local level and can't be done by somebody outside, particularly a person that doesn't have training and background in the care of infants."

The HHS rule was developed after the death last year of a six-day old boy in Bloomington, Ind., known only as "Infant Doe." He was afflicted with the Down syndrome and died after food and medical treatment were withheld at the request of the child's parents, supported by the family physician and the Indiana Supreme Court.

announcements

CALENDAR OF MEETINGS

NATIONAL

June 3-5	5th Annual Institute on Medical Hypnosis: Techniques and Clinical Applications—George Washington University, Washington, D.C.
June 3-9	American Society of Neuroradiology—St. Francis, San Francisco
June 4-7	International Symposium on Pituitary Tumors—Pine Manor College, Chestnut Hill, Mass.
June 5-9	American Society of Colon and Rectal Surgeons—Sheraton Hotel, Boston
June 6-10	Myocutaneous Flap Dissection Workshop—Eastern Virginia Medical School, Norfolk, Va.
June 7-10	Society of Nuclear Medicine—Cervantes Convention Center, St. Louis
June 8-10	Endocrine Society—Convention Center, San Antonio, Tex.
June 9-12	American Medical Electroencephalographic Association—Hyatt Regency, Orlando, Fla.
June 9-14	American Diabetes Association—Hyatt Regency, San Antonio, Tex.
June 17-18	Society for Vascular Surgery—Mark Hopkins Hotel, San Francisco
June 19-22	Birth Defects Conference (sponsored by March of Dimes Birth Defects Foundation and Univ. of Washington)—Seattle
June 19-24	Flying Physicians Association—Jackson Lake Lodge, Moran, Wyo.
June 22-24	International Conference on Cochlear Implants—University of California, San Francisco
June 22-25	American College of Surgeons—Rosario Resort on Orcas Island, Eastsound, Wash.
June 23-26	American Medical Women's Association—Marquette Hotel, Minneapolis
July 21-23	Society for Pediatric Dermatology, Annual Educational Meeting—Kiawah Island, S.C.
July 21-Aug. 4	National Medical Association—Chicago Marriott, Chicago

STATE

June 15-16	Upper Cumberland Medical Society—Fall Creek Falls State Park Inn, Pikeville, Tennessee

TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

June 1-4	Behavioral Neurology: Higher Cortical Functions and the Brain (17 hours)
June 4-5	Ophthalmology Residents Day
June 9-10	Controversies in Cardiology: 1983—Annual Scientific Sessions, Middle Tennessee Heart Association (10 hours)
July 7-9	Vanderbilt/Bowman-Gray Fifth Annual Mountain Meeting, Internal Medicine—Asheville, N.C. (12 hours)
July 16-23	Gynecologic Laser Surgery—Maui, Hawaii (25 hours)
July 19-23	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)
Sept. 19-23	Internal Medicine Review (40 hours)
Sept. 28-30	Recent Advances in Blood Banking
Oct. 13-16	International Surgical Group
Nov. 2-5	12th Annual Rhamy-Shelly Lectureship in Urology
Nov. 9-11	2nd Tennessee Perinatal Education Conference

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.

Pathology	Louis D. Green, M.D. John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D. Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

June 12-15	ECG Workshop—Pickwick Landing Resort State Park
June 13-14	Common Problems in Pediatric Adolescent Gynecology
June 29-July 2	Family Practice Update—Opryland Hotel, Nashville
July 31-Aug. 4	"Hands On" Practical Skills Workshop—Paris Landing State Park
Sept. 14-15	Diabetes Mellitus: Basic and Clinical Considerations
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Oct. 19-21	Cardiology Update—Chattanooga
Nov. 10-11	Sleep Disorders

Knoxville

June 16-18	Great Smoky Mountain Pediatric Seminar—Gatlinburg
June 23-25	Practical Otolaryngology for the Primary Care Physician—Gatlinburg
Oct. 13-15	Obstetrical Office Ultrasound—Gatlinburg
Oct. 20-22	Cancer Concepts '83—Gatlinburg
Oct. 23-25	4th Annual Smoky Mountain Seminar in Ob/Gyn—Gatlinburg

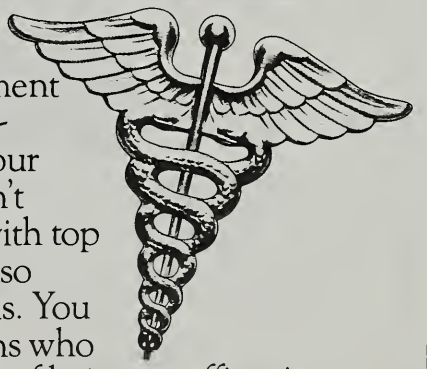
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the Consulting Group

Daytime and Evening Hours

These reports bring you information on what the AMA is doing, on behalf of the profession and the public, to influence decisions that will affect health care in the next decade and beyond.

women in medicine

A significant development in the past decade has been the increasing number of women in medicine. Ten years ago approximately 8% of physicians were women. At the end of 1980, the proportion of women physicians had grown to 11.6%. More impressive still is the gain in the number of women entering medical school. In 1970-71, freshman medical students included 1,256 women (11%); in 1980-81, freshman medical students represented 28.9% or 4,870 women. As these women graduate and enter the medical profession, approximately one-third of the physician population will be female.

What do these figures mean for membership in organized medicine? In December 1981 (most current data available), 31% of the 17,000 women medical students were AMA members compared to 39% of the 48,124 male medical students. For the rest of the physician population, including residents, 16,421 or 30.4% of the 54,000 women physicians belonged to the AMA, while 50.3% of the 414,000 male physicians were members. Though these figures have steadily increased over the last few years, it is obvious that women have not joined AMA at the same rate as their male counterparts.

To address this issue the AMA House of Delegates voted in 1979 to establish an Ad Hoc Committee on Women in Organized Medicine. This committee, comprised of representatives and leaders from various levels of organized medicine, prepared a comprehensive report to the Board of Trustees and the House of Delegates outlining nine recommendations for study intended to attract women physicians as members and leaders.

All of the recommendations of the first committee's report have been addressed by the AMA. Either AMA policy and scientific reports have been implemented or previous policy statements have been reaffirmed that enforce the recommendations of the committee. One specific recommendation was to continue the Ad Hoc Committee until June 1983. Dr. Palma Formica is the current chairman and the only member to carry over from the first committee.

According to Dr. Formica, one of the main goals of the second Ad Hoc Committee is to eliminate the need for a "special" committee by integrating women into the mainstream of Federation activities. To do this will require concentrated efforts by county, state and specialty societies to develop leadership among women by helping them prepare for that role.

The Ad Hoc Committee's working plan for the remainder of their tenure is aimed at assisting in these efforts. Some of their activities will include:

- a mailing to state and county executives with names of the women nonmembers in their area to encourage mainstream participation;
- two additional issues of the women physician newsletter to keep women physicians informed of the committee's activities;
- an updating of the list of women physician leaders;
- a workshop on sharpening the leadership skills necessary for working in the federation.

Some of these activities are ongoing projects; others, like the workshop, are new concepts which will eventually be standardized into models for the federation to use at the local level.

How successful have these activities been? AMA membership among women physicians has increased from 13,500 (26.9%) in 1979 to 16,400 (30.4%) in 1981. This represents an increase of 18% in members and 3.5% in market share—both significant changes. In addition, the number of women leaders is increasing. In the last two years, there have been four women presidents of state medical societies, two women delegates, a Chairman of the Board of a state medical society, a woman vice chairman of an AMA council and a woman chairman of the Resident Physician Section and chairperson of the Medical Student Section. In addition, women physicians continue to serve as delegates, alternate delegates and council members in organized medicine.

The women who are already active in organized medicine have identified a number of issues of particular concern to women. They and other AMA leaders urge greater participation of women in addressing those issues along with the entire range of topics so important to all of organized medicine today.

Won't you join them? The larger our membership (now nearly 240,000), the greater our influence for all of medicine.

For details on how to join, contact your state or county society or the Division of Membership, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610, (312) 751-6196.

AMA
AMERICAN MEDICAL ASSOCIATION

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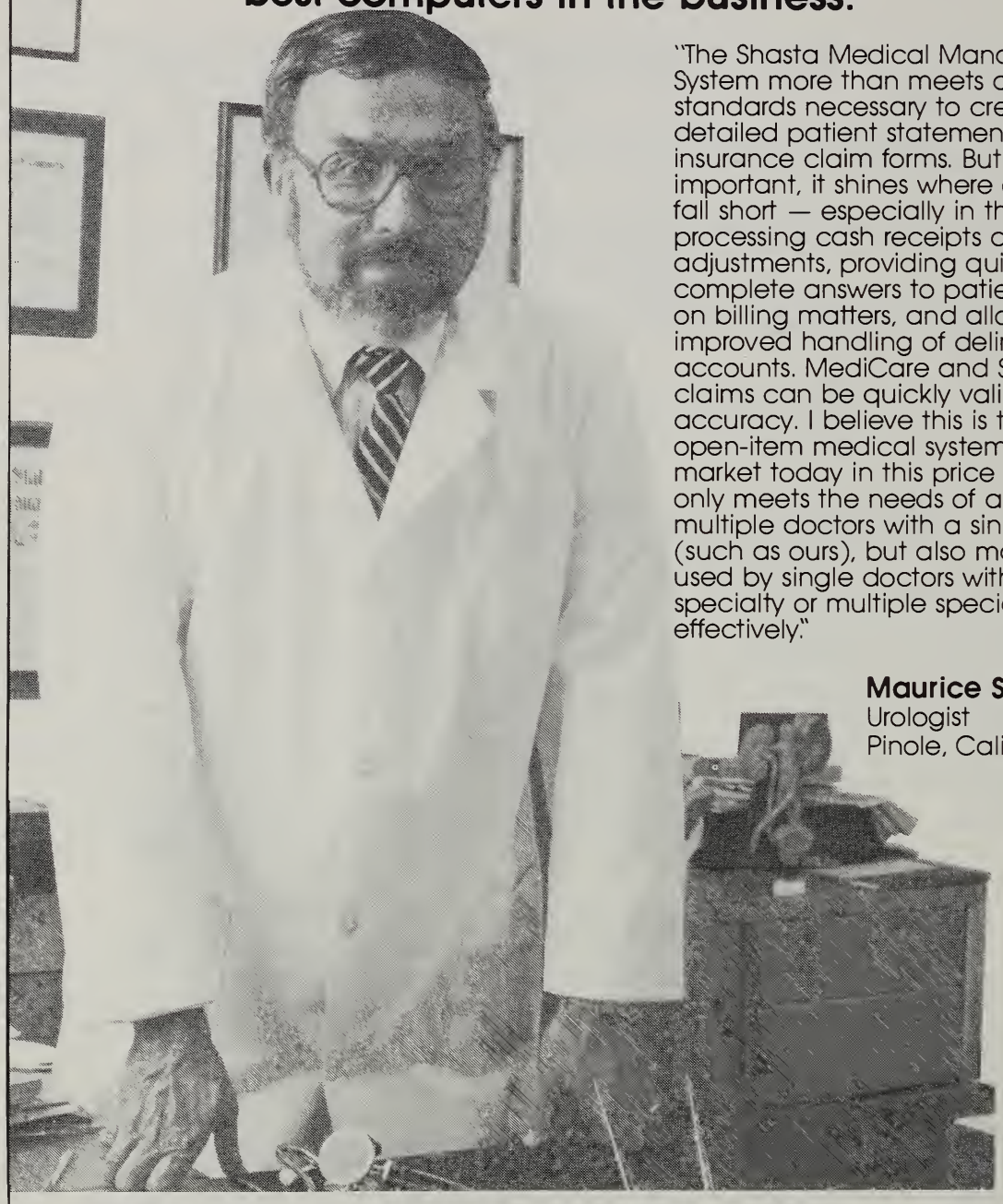
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Pinole, California

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JUNE, 1983
VOL. 76, NO.6

Abstract of the Proceedings of the House of Delegates Of the Tennessee Medical Association Nashville, Tennessee—April 13-16, 1983

Call to Order

The 148th annual meeting of the Tennessee Medical Association was conducted in Nashville, Tennessee, April 13-16, 1983, with headquarters in the Opryland Hotel. The House of Delegates met initially at 3:00 p.m., April 13, 1983, with Charles E. Allen, M.D., Johnson City, presiding as speaker of the House and Malcolm R. Lewis, M.D., Nashville, as vice speaker.

Invocation

At the opening session, James E. Hampton, M.D., Clarksville, gave the invocation: "Let us pray. Lord, we just thank you for all of the good things that you have done for us as members of our various communities. We thank you for all of the things you have done for us as a profession and as members of this country where we have such great freedom to practice. We pray particularly for our meeting today that your will might be done, whatever it might be, that there might be a real spirit of harmony as we try to do the things that are best for the people of this state. Bless us now we pray in Jesus name. Amen."

Report of the Committee on Credentials

John L. Farringer, M.D., Nashville, chairman of the Committee on Credentials, reported there was a quorum present. The speaker declared the House was in session.

1982 Minutes Approved

The speaker announced that an abstract of the minutes of the last regular session of the House of Delegates was reproduced in the June 1982 issue of the *Journal of the Tennessee Medical Association*. It was moved and seconded that the abstracted minutes of the 1982 session of the House of Delegates be approved as published in the June 1982 issue of the *Journal*. The motion was adopted.

Reference Committees

The speaker announced the members of the reference committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

REFERENCE COMMITTEE ON CREDENTIALS

John L. Farringer, M.D., Nashville, *Chairman*
Woodruff A. Banks, M.D., Chattanooga
William T. Satterfield, Jr., M.D., Memphis

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

James H. Donnell, M.D., Jackson, *Chairman*
Clarence E. Goulding, M.D., Johnson City
Joseph L. Willoughby, M.D., Franklin

REFERENCE COMMITTEE A

Ronald E. Overfield, M.D., Nashville, *Chairman*
Richard L. Hobart, Jr., M.D., Knoxville
Rex A. Amonette, M.D., Memphis

REFERENCE COMMITTEE B

Hal Stubbs, M.D., Bristol, *Chairman*
C. David Scheibert, M.D., Nashville
Warren Alexander, M.D., Tiptonville

REFERENCE COMMITTEE C

Hugh Francis, Jr., M.D., Memphis, *Chairman*
Duane C. Budd, M.D., Johnson City
Mark Doyne, M.D., Nashville

REFERENCE COMMITTEE D

W. Robert Gronewald, M.D., Morristown, *Chairman*
James C. Bradshaw, Jr., M.D., Lebanon
Dee Canale, M.D., Memphis

REFERENCE COMMITTEE ON OUTSTANDING PHYSICIAN OF THE YEAR AWARD

James W. Hays, M.D., Nashville, *Chairman*
George A. Zirkle, Jr., M.D., Knoxville
Allen S. Edmonson, M.D., Memphis

Nominating Committee

As required in the By-Laws, the Board of Trustees, in its January meeting, appointed a Nominating Committee with representatives from each of the three grand divisions of the state. The speaker announced the committee members.

EAST TENNESSEE

Jack Butterworth, Jr., M.D., Bristol
David H. Turner, M.D., Chattanooga
George A. Zirkle, Jr., M.D., Knoxville

MIDDLE TENNESSEE

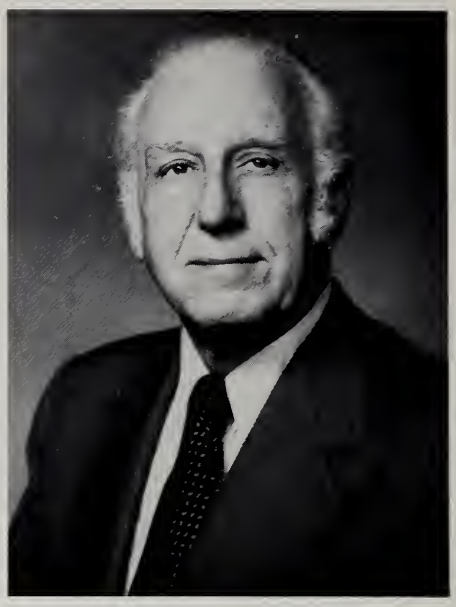
Lloyd T. Brown, M.D., Gallatin
Thurman L. Pedigo, M.D., McMinnville
John K. Wright, M.D., Nashville

WEST TENNESSEE

Rex A. Amonette, M.D., Memphis
Oscar M. McCallum, M.D., Henderson
J. Howard Ragsdale, M.D., Union City

ELECTION BY HOUSE OF DELEGATES APRIL 16, 1983

The preliminary report of the Nominating Committee was presented in the first session of the House of Delegates on Wednesday, April 13, 1983. The final report of the Nominating Committee was presented on Saturday, April 16, 1983 at the closing session of the House. Nominees submitted by the committee were voted upon individually, and in each instance, the speaker called for additional nominations from the floor. The following were elected:



Newly elected President-Elect Thomas K. Ballard, M.D., Jackson

President-Elect—Thomas K. Ballard, M.D., Jackson

Speaker—Charles E. Allen, M.D., Johnson City

Vice Speaker—Malcolm R. Lewis, M.D., Nashville

Vice President (East Tennessee)—Harold L. Neuenschwander, M.D., Knoxville

Vice President (Middle Tennessee)—Lloyd T. Brown, M.D., Gallatin

Vice President (West Tennessee)—Robert E. Clendenin, Jr., M.D., Union City

AMA Delegate (Middle Tennessee)
Charles B. Thorne, M.D., Nashville
(January 1, 1984-December 31, 1985)

AMA Alternate Delegate (Middle Tennessee)—
John S. Derryberry, M.D., Shelbyville
(January 1, 1984-December 31, 1985)

AMA Delegate (West Tennessee)—
A. Roy Tyrer, Jr., M.D., Memphis
(January 1, 1984-December 31, 1985)

AMA Alternate Delegate (West Tennessee)—
Hamel B. Eason, M.D., Memphis
(January 1, 1984-December 31, 1985)

AMA Delegate (East Tennessee)—
William O. Miller, M.D., Knoxville
(April 17, 1983-December 31, 1984)

AMA Alternate Delegate (East Tennessee)
Charles E. Allen, M.D., Johnson City
(April 17, 1983-December 31, 1984)

AMA Delegate (Middle Tennessee)
John B. Thomison, M.D., Nashville
(January 1, 1984-December 31, 1985)

AMA Alternate Delegate (Middle Tennessee)
Robert W. Ikard, M.D., Nashville
(January 1, 1984-December 31, 1985)

AMA Alternate Delegate (West Tennessee)
Allen S. Edmonson, M.D., Memphis
(April 17, 1983-December 31, 1984)

TRUSTEES

East Tennessee:
William F. Buchner, M.D., Chattanooga (1986)

East Tennessee:
John R. Nelson, Jr., M.D., Knoxville (1986)

Middle Tennessee:
Thurman L. Pedigo, M.D., McMinnville (1986)

West Tennessee:
Hugh Francis, Jr., M.D., Memphis (1986)

COUNCILORS

Second District—John E. Kesterson, M.D., Bristol (1985)

Fourth District—Will G. Quarles, Jr., M.D., Livingston (1985)

Sixth District—Ray W. Hester, M.D., Nashville (1985)

Eighth District—James T. Craig, Jr., M.D. (1985)

Tenth District—Phillip H. Dirmeyer, M.D., Memphis (1985)

THE ABOVE WERE ELECTED BY THE HOUSE OF DELEGATES

Petitions for New County Society Charters

At the opening session of the House of Delegates, petitions to form two new medical societies were received from physicians practicing in Hardin County and Carter County. Physicians in Hardin County petitioned to separate from the Consolidated Medical Assembly of West Tennessee to form the Hardin County Medical Society. Physicians in Carter County petitioned to separate from the Washington-Carter-Unicoi County Medical Association to form the Carter County Medical Society.

The House of Delegates approved the recommendation of the Reference Committee on Amendments to the Constitution and By-Laws that charters be granted to the Hardin County Medical Society and the Carter County Medical Society.

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

The speaker reported that there were no amendments to the Constitution lying on the table to be considered at this session by the House.

The proposed amendments to the Constitution and By-Laws are shown below, with proposed new language shown in **boldface** type and material to be deleted shown in *italics* and enclosed in brackets.

AMENDMENTS TO THE CONSTITUTION

CONSTITUTIONAL AMENDMENT NO. 1-83

Editorial Review of Constitution

WHEREAS, There are a number of instances of improper punctuation and capitalization, awkward sentence structure, and archaic terminology in the Constitution of the Tennessee Medical Association. Now therefore be it

RESOLVED, That the following changes, primarily editorial in nature, be authorized to improve clarity and readability:

ARTICLE III

Component [*S*] societies shall [*consist of*] **be** those local [*M*] **medical** [*S*] societies which hold charters from this Association.

ARTICLE IV

Section 1. This Association shall [*consist*] **be composed** of [*A*] **active**, [*Members, A*] **associate**, [*Members, V*] veteran, [*Members,*] special, [*H*] **honorary**, [*Members, I*] **intern** and [*R*] **resident**, [*Members,*] and [*S*] student [*M*] **members**.

Section 2. The [*A*] **active** [*M*] **members** of the Association shall be active members of the [*C*]**component** [*Medical S*] societies who have been certified to the [*S*] secretary of this Association and whose dues have been paid for the current year.

Section 3. Associate members shall be commissioned officers in active service of the U.S. Armed Forces, and Public Health Service, residing in the [*S*] state, who are elected to membership by a [*C*] **component** [*S*] society and certified to the [*S*] secretary of the [*State*] Association as

[*A*] associate [*M*] members. Such physicians may be eligible for active membership, if otherwise qualified.

Section 4. Veteran [*M*] members are those who, because of age or impaired health, have been elected [*V*] veteran [*M*] members of their [*C*] component [*S*] societies and who are so certified to the [*State*] Association annually by the [*C*] component [*S*] societies, Members who have attained age 70 in the previous calendar year, or age 65 if fully retired, may be elected [*V*] veteran [*M*] members for the current and subsequent years. Members who are not practicing medicine because of impaired health may be elected [*V*] veteran [*M*] members during the first year of disability and thereafter for as long as the disability exists.

Section 5 . . . Eligibility for special membership shall be determined year to year **by the Board of Trustees** upon receipt of personal application of the physician or an active member representing the physician. [*by the Board of Trustees.*]

Section 7. An [*I*] intern or [*R*] resident [*M*] member is any doctor of medicine appointed and serving in an approved [*I*] intern or [*R*] resident status, [*serving*] in an approved hospital in Tennessee, and [*who is*] certified as an [*I*] intern or [*R*] resident [*M*] member of his component [*medical*] society.

Section 8. A [*S*] student [*M*] member is any student regularly and duly enrolled in a medical school in Tennessee, [*and who is*] a candidate for the degree of Doctor of Medicine, and [*who is*] certified by his [*C*] component [*Medical S*] society.

ARTICLE V
House of Delegates

The House of Delegates shall be the legislative and business body of the Association, and shall [*consist*] **be composed** of (1) [*D*] delegates elected by the [*C*] component [*S*] societies; (2) ex-officio the [*O*] officers; (3) [*P*] past-[*P*] presidents of the Association [*,providing they are members in good standing of the Tennessee Medical Association*]; (4) the Association's delegates to the American Medical Association; (5) the general officers of the American Medical Association, members of councils elected by the AMA House of Delegates, and [*P*] past-[*P*] presidents of the American Medical Association [*, provided such officials are members in good standing of the Tennessee Medical Association]*; (6) the Commissioner of Public Health and Commissioner of Mental Health and Mental Retardation for the [*S*] state of Tennessee [*,provided such officials are members in good standing of the Tennessee Medical Association*]; (7) the editor of the Journal of the Tennessee Medical Association. **All Members of the House of Delegates must be members in good standing of the Association.**

ARTICLE VIII
Officers

Section 2. The Board of Trustees shall [*consist*] **be composed** of the [*P*] president of the Association, the [*S*] speaker of the House of Delegates, the [*V*] vice-[*S*] speaker of the House of Delegates, the immediate [*P*] past-[*P*] president, the [*P*] president-[*E*] elect, and members elected by the House of Delegates as hereinafter provided.

Section 4. the [*P*] president-[*E*] elect, the three [*V*] vice-[*P*] presidents, the [*S*] speaker and [*V*] vice-[*S*] speaker of the House of Delegates shall be elected annually for one year. The [*S*] speaker and the [*V*] vice-[*S*] speaker [*of the House*] shall hold office for not more than four consecutive years. The [*P*] president-[*E*] elect shall assume office as [*P*] president at the expiration of the term of the [*P*] president.

Section 8. Only a member [*who has been a member*] in good standing for the five years [*next*] **immediately** preceding the election, [*and*] **who** is in attendance at the meeting, shall be eligible for election as [*P*] president-[*E*] elect.

ARTICLE IX
The Powers and Duties of the Board of Trustees

Section 3 . . . The Board of Trustees shall render at the [*A*] annual [*Session*] **meeting** a full and detailed accounting of all receipts and disbursements.

Section 5. The Board of Trustees shall [*be the Executive Board of the Association to*] determine the policy and details of management between sessions of the House of Delegates.

ARTICLE X
Fiscal Year and Dues

Section 2. [*The annual dues of Active Members shall be fixed in the By-Laws. No dues shall be paid by Veteran, Associate, Student, or Honorary Members, (Chap. IX.)]*

Section 2. **The annual dues of members shall be determined by the House of Delegates. No dues shall be paid by veteran, special, associate, student, or honorary members.**

ARTICLE XI
Referendum

[*The General Meeting of the Association may, by a two-thirds vote of the members present and*

voting, order a general referendum upon any question pending before, or already decided by the House of Delegates. The House of Delegates may, by a similar vote of its own members, or after a vote of the general meetings, submit any such question to the membership of the Association for a final vote. If the persons voting shall comprise a majority of all the members registered at that Annual Meeting, a majority of such vote shall determine the question and be binding upon the House of Delegates.]

The House of Delegates may order a referendum of the membership on any question pending before or already decided by the House of Delegates. A vote of two-thirds of the delegates present and voting is required to order a referendum. The Board of Trustees will conduct a referendum by order of a petition of twenty-five percent of the general membership. A majority vote of the membership shall determine the question and be binding upon the House of Delegates.

ARTICLE XIII

Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the [*D*] delegates registered at the [*A*] annual [*Session*] **meeting,** provided that such amendment shall have been presented in open meeting at the previous [*A*] annual [*Session*] **meeting,** and that it shall have been sent officially to each component [*S*] society at least two months before the [*Session*] **meeting** at which action is to be taken. **However, changes in the Constitution that are editorial in nature, as determined by the House of Delegates, can be made at the meeting at which they are proposed.**

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of Constitutional Amendment No. 1-83 as amended.*

ACTION: **Lying on the table to be acted upon during the House of Delegates session at the 1984 annual meeting**

CONSTITUTIONAL AMENDMENT NO. 2-83

Changes in Election Procedures and Terms of Certain Officers of TMA

RESOLVED, That Article VIII of the Constitution of the Tennessee Medical Association be amended as follows:

Section 2. the Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the Vice Speaker of the House of Delegates, the Immediate Past-President, the President-Elect, and members elected by the House of Delegates as hereinafter provided.

Nine members of the Board of Trustees shall be elected by the House of Delegates, three from each grand division of the State, and no more than two from any one component society.

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself, except that this provision shall not apply to a Trustee who by virtue of election or appointment has served any portion of another's unexpired term. The Board of Trustees will organize by the election of a Chairman, and a Secretary-Treasurer from the nine elected as Trustees. **No member shall serve on the Board of Trustees for a period of more than ten consecutive years.**

Section 4. The President-Elect, the three Vice-Presidents, the Speaker and Vice-Speaker of the House of Delegates, shall be elected annually for one year. The Speaker and Vice-Speaker of the House shall hold office for not more than [*four*] **three** consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of Constitutional Amendment No. 2-83 as amended.*

ACTION: **Lying on the table to be acted upon during the House of Delegates session at the 1984 annual meeting.**

AMENDMENTS TO THE BY-LAWS

BY-LAW AMENDMENT NO. 1-83

Change in Parliamentary Procedure Guide

RESOLVED, That Chapter XI of the By-Laws be amended to change reference to parliamentary procedure as follows:

The deliberations of this Association shall be guided by parliamentary usage as contained in

[*Sturgis "Standard Code of Parliamentary Procedure."*] **Robert's Rules of Order as revised in 1979.**

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended nonadoption of By-Law Amendment No. 1-83.*

ACTION: **NOT ADOPTED**

BY-LAW AMENDMENT NO. 2-83

Investment Policy

WHEREAS, Economic and financial conditions dictate caution in the investment of Association funds; and

WHEREAS, The TMA Board of Trustees has established investment policy which limits investment to $100,000 in any single institution; and

WHEREAS, By-Laws of the Association limit investments to federally-insured state and national banks and savings and loan associations; and

WHEREAS, Other conservative investment options are desirable and prudent. Now, therefore be it

RESOLVED, That Chapter VI, Section 3 of the By-Laws be amended as follows:

Section 3. The Secretary-Treasurer shall give bond for the trust reposed in him, for such amount as the remaining members of the Board of Trustees may name, said bond to be made by a regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be **invested in obligations of the United States Treasury or** deposited in federally-insured state or national banks or savings and loan associations. **No more than the federally insured limit shall be invested in any single institution.** He shall pay money out of the treasury on bills certified to by him or the Executive Director of the Association only; he shall subject his accounts to such examination as the House of Delegates may order; he shall annually render an account of his acts and of the state of the funds in his hands.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of By-law Amendment No. 2-83 as amended.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTIONS

The reference committees have the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted for referral, or for no action. The resolutions that follow are in the form in which they were **adopted, not adopted,** or **referred** by the House of Delegates. Resolution No. 13-83 was withdrawn.

RESOLUTION NO. 1-83

Election of AMA Delegates and Alternates

BY: JAMES T. GALYON, M.D., CHAIRMAN
TMA BOARD of TRUSTEES

WHEREAS, An increase in membership in the American Medical Association by Tennessee physicians during 1982 has qualified the Tennessee Medical Association to have representation in the House of Delegates of the American Medical Association consisting of six delegates and six alternate delegates; and

WHEREAS, A formula for electing the AMA delegates and AMA alternate delegates should be fair and equitable for all sections of the state in order to insure appropriate representation of all TMA members; and

WHEREAS, Tennessee has qualified to send a sixth delegate and alternate delegate to the 1983 meetings of the AMA House of Delegates. Now, therefore be it

RESOLVED, That upon adoption of this resolution, two AMA delegates and two AMA alternate delegates shall be from each of the three grand divisions of the state; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE—*recommended adoption of Resolution No. 1-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 2-83

Medical Records

BY: THURMAN PEDIGO, M.D., CHAIRMAN
TMA JUDICIAL COUNCIL

WHEREAS, Medical records are and should remain the property of the individual physician; and

WHEREAS, Patients should have certain rights of access to information on their records; and

WHEREAS, The doctrine of confidentiality requires that a physician not divulge certain information to third parties without the consent of the patient. Now, therefore be it

RESOLVED, That the Tennessee Medical Association policy regarding patient access to medical records is as follows:

A. Member physicians should make available to a patient, upon a written request, summaries or copies of the patient's medical record.

B. Patients should have access to a record of all medical reports concerning the patient made available to third parties (any health care provider, public or private insurance carrier, employer, attorney or governmental agency or body).

C. Physicians should comply with the patient's written request for copies of the medical record within a reasonable time, not to exceed 60 days.

D. At the physician's discretion, disclosure of any portion of the medical record to the patient may be made in the form of an accurate, representative summary of the factual information contained within the written account(s).

E. For the purpose of these guidelines, "medical record" does not include the personal office notes of physicians or personal communications between a referring and consulting physician relating to the patient. However, at the discretion of the physician, representative summaries of such notes and communications may be included in the disclosure.

F. If the physician disclosing the medical record to a patient believes, in good faith, that the release of any portion of the medical record would be injurious to the health or well-being of the patient, such disclosure of any portion of the medical record may be denied.

G. The physician may establish charges for the costs incurred in providing the patient with copies of his medical record. Such charges may include the costs of reviewing, summarizing and/or reproducing the original medical record. The physician should not refuse to give medical reports or depositions where the patient is unable to pay his bill for medical services. The physician may refuse to honor requests for reports and/or depositions requested for litigation if payment for same is not made at the time of the service rendered or by agreement within a reasonable time after billing.

H. Any portion of a medical record relating to medical or surgical diagnosis or treatment of a minor emancipated by law, and performed without the consent or knowledge of the parent(s) or guardian, shall not be disclosed to the parent(s) or guardian without the written consent of the minor; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 2-83 as amended.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTION NO. 3-83

Dues Increase to Fund TMA-SEF

BY: JAMES T. GALYON, M.D., CHAIRMAN
TMA BOARD OF TRUSTEES

WHEREAS, The TMA House of Delegates assembled in 1963 enthusiastically and with pride unanimously established the Tennessee Medical Association-Student Education Fund for the purpose of financially assisting needy medical students enrolled in one of the Tennessee medical schools; and

WHEREAS, Over the 20-year history of the fund, more than 250 worthy medical students have received financial aid totaling more than $420,000, with defaults amounting to less than 2%; and

WHEREAS, In recent years spiraling tuition and living costs have precipitated a greater number of loan applications than ever before; and

WHEREAS, Loan applicants, many of whom would normally seek assistance from other sources, are now turning to TMA-SEF as the Federal Guaranteed Student Loan program will be phased out during 1983-84; and

WHEREAS, Approximately 80% of all medical students enrolled in UTCHS and a substantial number enrolled in the other Tennessee medical schools rely on financial assistance from outside family sources to complete their medical

training; and

WHEREAS, As a result of an unusually large number of loan requests being received after the 1981 dues assessment approved by the House of Delegates, but before actual dollars were received, the TMA-SEF Board of Directors petitioned the TMA Board of Trustees to advance the anticipated $45,000 additional funds which the assessment would generate in order to accommodate the loan requests; and

WHEREAS, Even with an advance from the dues assessment, the Board of Directors at its last meeting was forced to prorate all requests for loans, and to delay till the April meeting consideration of more than 20 additional applications for loans; and

WHEREAS, In order to consider pending loan applications, at the request of the TMA-SEF Board of Directors, the TMA Board of Trustees approved an additional line of interest-free credit in the amount of $50,000; and

WHEREAS, It is apparent that the $10 dues increase already approved is not sufficient to fund the loan program alone and additional assistance from the TMA treasury will be necessary; and

WHEREAS, The TMA Board of Trustees is hesitant to approve additional lines of credit without specific instructions from the House of Delegates; and

WHEREAS, Only one other state association has a dues structure lower than the Tennessee Medical Association; and

WHEREAS, The TMA Board of Trustees is of the opinion that the consideration of an additional dues increase by this House of Delegates is in order. Now, therefore be it

RESOLVED, That the TMA House of Delegates here assembled authorize an additional dues increase in the amount of $15 earmarked specifically for the TMA-SEF; and be it further

RESOLVED, That this House of Delegates commend the TMA-SEF Board of Directors for their faithful and diligent service in carrying out their duties over the past 20 years in an extremely competent and trustworthy manner; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 3-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 4-83

Impaired Physician Program Funding

By: Charles B. Thorne, M.D.
TMA Impaired Physician Committee

WHEREAS, The Tennessee Medical Association House of Delegates in 1978 directed the Board of Trustees to implement a program for the detection and rehabilitation of impaired physicians; and

WHEREAS, The committee has presented to this House an annual report on its progress and accomplishments; and

WHEREAS, The program has grown continually to the point that the workload of committee volunteers cannot continue to increase without the program's effectiveness or the physicians' private practices suffering; and

WHEREAS, There continues to be much work to be done in the areas of education, identification, confrontation, and especially follow-up on rehabilitation and reentering practice; and

WHEREAS, Other state programs that have experienced a similar workload have been able to absorb the growth and continue a high level effective program by engaging the services of a physician to serve part-time as a medical director; and

WHEREAS, The Board of Trustees supports the contracting for a part-time medical director but the Association's current budget for the Impaired Physician Program is not sufficient to include a part-time medical director. Now, therefore be it

RESOLVED, That the House of Delegates support the funding of the Impaired Physician Program, including the contracting with a physician to serve as medical director, by increasing the annual dues of active members by $15; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 4-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 5-83

Joint Practice

By: James T. Galyon, M.D., Chairman
TMA Board of Trustees

WHEREAS, The House of Delegates adopted Resolution No. 5-76 which established policy relating to joint practice arrangements in Tennessee; and

WHEREAS, Resolution No. 5-76 terminates if not reaffirmed or modified prior to the end of this meeting; and

WHEREAS, The policy contained in the *Statement on Joint Practice* attached hereto remains valid and useful. Now, therefore be it

RESOLVED, That the attached statement be reaffirmed as TMA policy on joint practice; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

April, 1976
TENNESSEE MEDICAL ASSOCIATION-
TENNESSEE NURSES ASSOCIATION
JOINT PRACTICE COMMITTEE

STATEMENT ON JOINT PRACTICE

This statement embodies guiding principles and professional opinion on elements of joint practice by physicians and registered nurses in any health care setting. This statement testifies to mutually agreed upon principles of practice and can be used to validate generally acceptable practices or patterns of care. It also serves as a focal point for responding to health care needs through expanded methods of delivery.

The Tennessee Medical Association and Tennessee Nurses Association cannot, through this statement, alter the legal authority of the physician or registered nurse. Physicians and registered nurses are issued independent licenses to practice their respective professions by the State of Tennessee (TCA 63-6, TCA 63-7), and are thereby accountable to the citizens of Tennessee.

The following principles of joint practice, when applied, can provide optimum utilization of the services of physicians and registered nurses to increase availability, accessibility and quality of health care in Tennessee.

(1) The foremost concern of all joint practice arrangements is the provision and maintenance of quality health care.

(2) Medical and nursing services are complementary but they are not interchangeable either in responsibility or accountability. Each practitioner shall perform only those acts for which that person has been licensed, prepared and has demonstrated ability to perform.

(3) All physicians and nurses in active practice shall have a knowledge and understanding of the laws that regulate and influence their professions and other health care providers.

(4) The joint practice of physicians and nurses includes both independent and cooperative decision making. Jointly developed protocols can clarify shared responsibilities and delegated functions. Appropriate medical and nursing supervision must be available at all times by on-site communication or at least the access to telephone. A regular communications schedule shall be established between the nurse(s) and physician(s) in joint practice to facilitate discussions and review of patient care management and to assure availability of consultation. Mechanisms for patient referral shall be jointly agreed upon.

(5) In each joint practice situation, written protocols jointly developed by the nurse(s) and physician(s) shall outline delegated medical tasks and drug management to be used in patient care. Protocols shall be individualized according to the physician and nurse using them and represent an agreement between them regarding that specific practice setting. Protocols shall be reviewed and revised periodically.

(6) Each practitioner is accountable and responsible for the quality of care he renders. Each practitioner is also responsible for the maintenance and improvement of his practice proficiency.

(7) Joint practice arrangements can exist in any health care delivery setting, including but not limited to coronary care units, intensive care units, private physician offices, hospital emergency rooms and primary care clinics.

(8) Joint practice settings require registered nurses to have formal preparation for the specialty practice in which they will function. Physicians must have a knowledge and understanding of that preparation. Both the physician and the nurse must understand that the limits on the scope of practice are dependent on the complexity of the situation and the preparation of the nurse.

(9) Each practitioner shall receive remuneration commensurate with qualifications, proficiency, and services rendered.

(10) It is advantageous for joint practice committees to be established by local medical societies and district nurses associations and/or within each health care delivery setting to facilitate communications between physicians and nurses and to monitor delivery of care.

The Joint Practice Statement shall be reviewed and revised as necessary to incorporate appropriate concepts which may develop.

REFERENCE COMMITTEE D—*recommended referral of Resolution No. 5-83 to the TMA Board of Trustees for further study.*

ACTION: **REFERRED TO THE TMA BOARD OF TRUSTEES FOR FURTHER STUDY**

RESOLUTION NO. 6-83

Time of Submission of Resolutions to TMA House of Delegates

By: James T. Galyon, M.D., Chairman
TMA Board of Trustees

WHEREAS, The House of Delegates adopted Resolution No. 15-76 which established policy relating to the introduction of resolutions to be acted upon in the House of Delegates; and

WHEREAS, Resolution No. 15-76 terminates if not reaffirmed or modified prior to the end of this meeting; and

WHEREAS, The policy contained in Resolution No. 15-76 has proven effective and should be maintained. Now, therefore be it

RESOLVED, That all resolutions received prior to the opening session of the House be in-

troduced without special approval of the House of Delegates; and be it further

RESOLVED, That all resolutions received at the Tennessee Medical Association headquarters two weeks prior to the TMA annual meeting be forwarded to the delegates prior to the opening session of the House; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 6-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 7-83

Medicid Patients: Quality of Care and Freedom of Choice

By: Hamel B. Eason, M.D.
Tennessee Society of Internal Medicine

WHEREAS, The original Medicaid-Medicare federal law guaranteed the right of patients' freedom of choice of physicians; and

WHEREAS, The Omnibus Reconciliation Act of 1981 provides the states an opportunity to apply to the Secretary of Health and Human Services for waivers of the Medicaid patients' freedom of choice of physicians; and

WHEREAS, The State of Tennessee has applied for such a waiver; and

WHEREAS, The State of Tennessee plans to develop such a plan for trial basis in Maury County under the concepts of a case management system (Primary Care Network—"Gatekeeper"); and

WHEREAS, This plan restricts the patients' freedom of choice of their physicians; and

WHEREAS, This plan will in all likelihood be designed to reduce costs with little guarantee of patient accessibility to the highest quality of medical care; and

WHEREAS, The long range health and other consequences of such a plan have not been considered sufficiently. Now, therefore be it

RESOLVED, That the Tennessee Medical Association bring to the attention of the Governor and the Commissioner of Public Health of the State of Tennessee its grave concern that implementation of this plan without further study will have a significant adverse effect on quality of care and accessibility to care for the Tennessee Medicaid patients; and be it further

RESOLVED, That the Tennessee Medical Association request from these public officials that a task force be jointly and equally appointed by the State of Tennessee and the Tennessee Medical Association to study the issue and develop alternative concepts which will at the same time help in controlling costs for the State while maintaining quality care and accessibility for patients of the Tennessee Medicaid program; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE A—*recommended referral of Resolution No. 7-83 to TMA Governmental Medical Services Committee for further study.*

ACTION: **REFERRED TO TMA GOVERNMENTAL MEDICAL SERVICES COMMITTEE FOR FURTHER STUDY**

RESOLUTION NO. 8-83

Cost Containment

By: Charles W. White, M.D.
Consolidated Medical Assembly of West Tennessee

WHEREAS, The Tennessee Medical Association has been concerned about cost containment related to medical care; and

WHEREAS, There has been explosive growth in the number of agencies offering home health services; and

WHEREAS, There is at the present no limitation on the number of times a person may be visited in the home; and

WHEREAS, These home visits may be justified for nursing care, personal hygiene, physical therapy and various other reasons; and

WHEREAS, The charge made to third parties seems to be greatly in excess of the costs experienced by the visiting agencies. Now, therefore be it

RESOLVED, That the Tennessee Medical

Association encourage third parties to develop a method of insuring that the number and type of visits made to the home are necessary; and be it further

RESOLVED, That the Tennessee Medical Association encourage a change in the method of reimbursement of existing and future agencies so that the patient is responsible for a portion of the payment; and be it further

RESOLVED, That TMA recommends that home health agency reimbursements for these visits must be reasonable and commensurate with the level of care being provided; and be it further

RESOLVED, That copies of this resolution be sent to the State Health Planning Office, the Medicare office, the Medicaid office, and other proper state agencies; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 8-83 as amended.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTION NO. 9-83

Business Education in Residency Programs

By: Duane C. Budd, M.D.
Washington-Carter-Unicoi
County Medical Association

WHEREAS, All physicians need a good basic education in the fundamentals of operating a business; and

WHEREAS, Most physicians entering the practice of medicine have little idea of the complexity and problems of running a business in our modern world; and

WHEREAS, Considerable financial loss can occur due to the utilization of poor business practices; and

WHEREAS, The Tennessee Medical Association should encourage programs emphasizing good business practices by physicians. Now, therefore be it

RESOLVED, That the Board of Trustees determine what education about sound business practices young physicians need; and be it further

RESOLVED, That the Board of Trustees disseminate information about existing resources such as the AMA and AAFP programs, and develop other resources where needed to further such education; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE D—*offered Substitute Resolution No. 9-83 in place of original Resolution No. 9-83; recommended adoption of Substitute Resolution No. 9-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 10-83

Emergency Clinic Guidelines

By: Marvin D. Peterson, M.D.
Blount County Medical Society

WHEREAS, Medical emergencies occur at all hours of the day, demand the best facilities and personnel a community can offer, and should be treated regardless of a person's ability to pay; and

WHEREAS, A number of outpatient medical facilities owned and operated by physicians have been established recently in Tennessee and are identified and advertised as "emergency clinics"; and

WHEREAS, Many of these clinics are open only part of the day or week; have less staff, equipment, and backup medical facilities than nearby hospital emergency rooms; and accept only patients who can pay cash; and

WHEREAS, A physician should be honest and accurate in representing to the public his ability to deliver medical services. Now, therefore be it

RESOLVED, That the Tennessee Medical Association strongly urge physicians not to use the word "emergency" in naming and advertising their offices unless three criteria are fulfilled: (1) the facility provides uninterrupted emergency medical care at all hours of the day and week; (2) the capability to provide emergency medical care is appropriate for the community and is comparable to care provided by hospital emergency rooms in the community; and (3) any patient requiring or seeking emergency medical services is not refused care because of his inabil-

ity to pay; and be it further

RESOLVED, That the Tennessee Medical Association petition appropriate legislative and executive regulatory bodies to restrict the use of the word "emergency" to medical facilities meeting the three criteria noted above; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 10-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 11-83

Medical Staff Organization

By: John S. Buchignani, Jr., M.D.,
President
Memphis-Shelby County Medical Society

WHEREAS, the medical staff organizations and their activities within hospitals are an integral and essential part of the practice of medicine; and

WHEREAS, It is essential that hospitals set high standards relating to these areas; and

WHEREAS, Current high standards which have been established and maintained by the JCAH for years have had a salubrious effect upon the care of hospital patients. Now, therefore be it

RESOLVED, That the House of Delegates of the Tennessee Medical Association commend the AMA Commissioners to the JCAH for their adoption of the principle of the continued use of the term "medical staff" as opposed to "organized staff" in the JCAH Accreditation Manual for Hospitals; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE C—*offered Substitute Resolution No. 11-83 in place of original Resolution No. 11-83; recommended adoption of Substitute Resolution No. 11-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 12-83

Opposition to Prospective Payment for Physicians' Services to Medicare Patients Based on Diagnosis Related Groups (DRGs)

By: John S. Buchignani, Jr., M.D.,
President
Memphis-Shelby County Medical Society

WHEREAS, The House of Representatives of the United States has passed a bill which will require, beginning in October, 1983, that Medicare recipients admitted to hospitals will have the greatest portion of their bill paid according to the diagnosis of the illness; and

WHEREAS, Hospitals will be paid prospectively depending on the primary and secondary diagnoses regardless of length of stay and of the ancillary services required except in unusual cases; and

WHEREAS, The same bill passed by the House of Representatives also asks the Secretary of HHS to report on "the advisability and feasibility of making physician payments under a prospective payment system"; and

WHEREAS, The bill would require the Secretary to begin collecting physician charge data for each DRG in fiscal year 1984 and to report to Congress by Dec. 1, 1984. Now, therefore be it

RESOLVED, That the Tennessee Medical Association join the AMA in strongly opposing any legislation requiring prospective payment of physicians' fees based on diagnosis related groups (DRGs); and be it further

RESOLVED, That a copy of this resolution be sent to all Tennessee members of the United States House of Representatives and Senate and the Secretary of HHS; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE A—*offered Substitute Resolution No. 12-83 in place of original Resolution No. 12-83; recommended adoption of Substitute Resolution No. 12-83.*

ACTION: **ADOPTED**

RESOLUTION NO. 14-83

Captain of the Ship Legislation

BY: MCCARTHY DEMERE, M.D.

WHEREAS, Techniques and procedures in hospital operating rooms have now advanced to the point of definite separation of responsibilities of surgery, anesthesia, and hospital personnel; and

WHEREAS, The "Captain of the Ship Doctrine" making the surgeon responsible for all mishaps in the operating suite is outmoded and unreasonable; and

WHEREAS, Tennessee has a unique Supreme Court decision holding both hospital and surgeon liable, and only state legislation can overcome this decision. Now, therefore be it

RESOLVED, That the TMA go on record in favor of legislation abolishing the "Captain of the Ship Doctrine"; and be it further

RESOLVED, That the TMA Committee on Legislation assist in drafting model legislation and help to educate the public, the legal profession and the legislators in securing definite separation of operating room responsibilities; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1990.

REFERENCE COMMITTEE A—*recommended referral of Resolution No. 14-83 to TMA Board of Trustees for further study.*

ACTION: **ADOPTED**

DISTINGUISHED SERVICE AWARDS

The Distinguished Service Award is presented annually by the Board of Trustees of the Tennessee Medical Association to physician members who have made eminent contributions to the public welfare or to the advancement of medical science. At the 148th annual meeting of TMA on April 13-16, the chairman of the Board of Trustees announced that there were three recipients of this award in 1983.

***Eugene W. Fowinkle, M.D.**, is a native of Memphis who received his medical degree in 1958 from the University of Tennessee Center for the Health Sciences in Memphis.*

He became director of the Memphis-Shelby County Health Department in 1966 and held that post until Governor Buford Ellington named him Tennessee Commissioner of Public Health in July, 1969.

Dr. Fowinkle held his state post until his resignation in January, 1983.

"He probably was the most active and progressive public health commissioner Tennessee has ever known," said the Memphis-Shelby County Medical Society in nominating Dr. Fowinkle for the award. "Under his able and strong leadership, primary care services and facilities were established in underserved rural and urban areas throughout the state."

For his outstanding contributions to the public health of Tennessee, the Board of Trustees is pleased to present this richly deserved award to Dr. Fowinkle.

***George W. Shannon, M.D.**, graduated from Case Western Reserve University Medical School in 1971. He practiced medicine in Parsons, Tennessee, from 1974 to 1976.*

In 1976, he became director of the Jackson-Madison County General Hospital family medicine residency program, a position he held until 1982.

While he was director, the hospital's residency program grew from five residents in postgraduate first and second years to a total of 21 residents in training in all three postgraduate years.

Dr. Shannon was responsible for development of the educational curriculum, evaluation system and residency rotation schedule as well as doing most of the teaching in the inpatient unit.

Under his direction, planning and construction of a new 19,000-square-foot family medicine education center was completed. The faculty was increased to five full-time members and 25 to 30 part-time members.

Dr. Shannon is a most worthy recipient of this award and the Association is very pleased to confer this honor on him.

***A. Roy Tyrer, Jr., M.D.**, a native of Kentucky, received his medical degree from Loma Linda (California) University. He has practiced neurosurgery in Memphis since 1950.*

In 1966, he served as president of the Memphis-Shelby County Medical Society and was president of the Tennessee Neurological Society in 1970.

Dr. Tyrer has represented Tennessee in the American Medical Association House of Delegates since 1967 as an alternate delegate for six years and delegate for the past decade. His service to the AMA includes the Council on Medical Service, chairman of the Council on Voluntary Health Agencies, Committee on Governmental Medical Services, chairman of the Committee on New Health Practitioners, Advisory Committee to Volunteer Physicians for Vietnam and the National Joint Practice Commission.

Dr. Tyrer is an inspiration to all who strive to preserve the rights and freedom of physicians everywhere. He has devoted thousands of hours, traveled thousands of miles and fought a thousand battles in behalf of physicians.

The Tennessee Medical Association is indeed honored to recognize the outstanding contributions of Dr. Tyrer by presenting him with this award.

COMMUNITY SERVICE AWARDS

Each year, the Tennessee Medical Association is privileged to present its Community Service Award to citizens who have made significant contributions to their community and state in the very broad field of health care. This year, TMA recognized the contributions of three distinguished Tennesseans—two women and a man.

***Mrs. Lamar Alexander,** wife of Tennessee's governor, has served as chairman of the Governor's Task Force on the Prevention of Mental Retardation since its inception in August, 1980. She has been a member of the board of directors, public affairs committee and child advocacy committee of the Junior League of Nashville, Inc., and has taken part in activities of the Tennessee Botanical Gardens and Fine Arts Center at Cheekwood, Cumberland Museum and Science Center, McNeilly Day Home, Historic Nashville, Children's Hospital, and Fifth District Republican Women's Club.*

Tennessee's First Lady was honorary chairman of the International Year of the Child Committee and the White House Conference on Families in Tennessee. She also has served as a delegate to the White House Conference on Families.

Mrs. Alexander serves on the board of directors of the Council of Community Services, Dede Wallace Community Mental Health Center, Nashville's Family and Children's Services, and the Nashville Symphony.

The Tennessee Medical Association proudly bestows its Community Service Award on Mrs. Alexander.

***Mr. Nelson C. Andrews,** president of McClure's Department Stores of Nashville and a real estate developer, was charter chairman of the board of Children's Hospital of Vanderbilt University Medical Center Hospital and continues to be instrumental in providing tertiary pediatric medical care to Middle Tennessee through his fund-raising and community activities.*

He was founding president of the Canby Robinson Society of the Vanderbilt University School of Medicine.

Mr. Andrews was charter president of Nashville Better Business Bureau and chairman of the steering committee which established Leadership Nashville, an organization which provides a program to identify men and women who are established leaders in the Nashville community and seeks to prepare them for responsible public decision-making. He has been a member of the board of the Nashville office of the Salvation Army and is a past president of its advisory board.

Mr. Andrews is a highly deserving recipient of the Community Service Award and TMA is proud to present it to him.

***Mrs. Nelma Justin,** McMinnville, has worked tirelessly for the mentally handicapped in Warren County by lobbying before local and state governmental bodies and testifying before President Carter's Commission on Mental Health.*

She recruited the help of interested friends to form the Cheer Mental Health Association and opened its first office in the dining room of her home.

The Cheer Mental Health Center opened the doors of its new building on Sparta Road in McMinnville in February 1981. The Cheer program has become known statewide as a model program for effectiveness in outplacement of the institutionalized mentally ill.

Mrs. Justin, office manager and long-time employee of Ben Lomand Rural Telephone Cooperative in Warren County, was honored with a Nelma Justin Day in Warren County in May 1981, when she was presented with the Bellringer Award by the Cheer Mental Health Association.

For her marvelous contributions and concern for her fellow human beings, TMA is honored to present Mrs. Justin with this award.

COMMENDATION RESOLUTION

Thurman Shipley, M.D.

BY: PUTNAM COUNTY MEDICAL SOCIETY

WHEREAS, Thurman Shipley, M.D. has achieved a highly distinguished record as a practicing physician in Putnam County for 50 years; and

WHEREAS, He has served as Vice President of the Tennessee Medical Association, Family Practitioner of the Year by the Tennessee Academy of Family Practice, and was instrumental in organizing the Tom Moore Chapter of the Tennessee Academy of Family Practice; and

WHEREAS, He has served continuously as Secretary/Treasurer of the Putnam County Medical Society for 50 years. Now, therefore be it

RESOLVED, That the House of Delegates pay tribute to this outstanding physician for his vast contributions in behalf of the medical profession and the public; and be it further

RESOLVED, That the Board of Trustees of the Tennessee Medical Association present to Dr. Shipley a permanently framed copy of this resolution to serve as a reminder of our appreciation and admiration.

TENNESSEE'S OUTSTANDING PHYSICIAN OF THE YEAR

Amos Christie, M.D.

The Tennessee Medical Association's most coveted honor, the Outstanding Physician of the Year Award, was presented to Amos Christie, M.D., Nashville. In its opening session, the House of Delegates was presented with two nominees and elected Dr. Christie as the physician to recognize in 1983 for outstanding achievement. He was nominated for the award by the Nashville Academy of Medicine.

Dr. Christie, professor of pediatrics emeritus at Vanderbilt University School of Medicine, has made significant contributions to the field of medicine throughout a long, distinguished career.

Dr. Christie is a native of Eureka, California. He received his medical degree in 1929 from the University of California School of Medicine in San Francisco. He was an instructor in pediatrics at that university from 1930 to 1935. He joined Johns Hopkins University as a research associate in 1936 and was associated with the U.S. Department of Labor in Washington as a pediatric specialist.

From 1942 to 1943, he was assistant director of medical and health services for the American Red Cross in the nation's capital. In 1943, he became professor and chairman of the Department of Pediatrics at Vanderbilt. He held that post until 1968.

The 80-year-old physician was the first recipient of the Harvie Branscomb Distinguished Professor Award for his accomplishments at Vanderbilt. He was the first pediatrician to receive the John Phillips Memorial Award for his discovery of a benign form of histoplasmosis and he later found a cure for its malignant form.

Dr. Christie is a past president of the Tennessee Pediatric Society and the Nashville Pediatric Society.

The American Pediatric Society recognized Dr. Christie's extraordinary career by presenting him with the prestigious John Howland Award in 1979. That same year, the American Public Health Association recognized his "distinguished contributions to public health for 40 years" by presenting him with an award.

In 1971, Dr. Christie received the coveted Jacobie Award from the Pediatric Section of the American Medical Association. The award is named for Dr. Abraham Jacobi, termed the founder of pediatric practice in America, and is presented to those great American pediatricians who contribute significantly to the improvement of pediatric practice.

Dr. Christie and his wife of 49 years, Margaret, have a daughter, Mrs. Linda Christie Moynihan.

The Tennessee Medical Association was honored to present its 1983 Outstanding Physician of the Year Award to Amos Christie, M.D.

REPORTS OF OFFICERS

Report of the President

GEORGE W. HOLCOMB, JR., M.D.

Serving as the 128th president of the Tennessee Medical Association has been a most memorable experience for me. Since reports to the House of Delegates from the Board of Trustees, the executive director and our many functioning committees will give you a thorough review of the Association's activities, I will not attempt to recount my year as president in lengthy detail. For me the most enjoyable aspect of the past year has been the opportunity to visit the county medical societies across the state. I was extremely proud to see your high standards of practice, your dedication, and your interest in medical affairs and continuing medical education. My only regret was not being able to accept all the invitations because of a few scheduling conflicts.

Earlier in the year a great deal of time was expended in settling the dispute with the Federal Trade Commission. The details of this agreement have already been published and circulated to the membership. I call your attention to this landmark agreement because the terms will impact on the way medicine can be practiced hereafter and because of the determined way this governmental agency has established regulations for our profession.

On the state level, we have continually monitored and been involved with medical legislation throughout the year. However, we were surprised a few months ago by the proposed plan for reorganization of the Department of Public Health. For the first time it appears that the Commissioner will not be a licensed physician. From this decision it becomes abundantly clear that medicine's concern for the public welfare has been overshadowed by the emphasis on administrative capabilities and economic factors.

It is against the background of these two fundamental changes that we look to the future. We must cooperate with hospitals and the nursing profession in providing quality health care for all our citizens with a clear recognition of the financial factor. Our voice must be heard in the plan-

ning and development of business and labor coalitions.

Legislative action in medical affairs should be monitored carefully and influenced to reflect our profession's concern for the public welfare. The inequities of rapidly increasing costs in medical liability settlements under our present tort system needs further emphasis. It is apparent that we must speak out clearly and consistently, stressing where necessary the knowledge and unique expertise that only the physician possesses in the health care field. These efforts, however, will go for naught without an ongoing evaluation of ourselves and our relationship with patients. I hope that you as informed participants of organized medicine as well as leaders in your local and specialty societies will serve as active conduits for the dissemination of information to your colleagues and the public.

The Tennessee Medical Association is most fortunate to have a professional staff of men and women who are dedicated, knowledgeable and responsive. It has been a pleasure to work closely with them this past year in your behalf.

You have chosen an excellent president-elect in Nat E. Hyder, Jr., M.D. He and your Board of Trustees are committed to accomplishing the objectives established by the House of Delegates representing the TMA membership.

I sincerely appreciate the enthusiastic support you and the other members across the state have given me this year.

REFERENCE COMMITTEE C—*reviewed the report of the president, thanked Dr. Holcomb for a year of superb and diligent leadership, and recommended that the report be filed.*

Report of the Board of Trustees

JAMES T. GALYON, M.D., *Chairman*

The Board of Trustees conducted four quarterly meetings during the past year. Abstracted minutes of major actions taken by the Board appear on a regular basis in the *Journal* following all quarterly meetings. In fulfilling its obligation to the Association, the Board and Executive Committee took under consideration 166 items of business during the past 12 months. In addition, numerous telephone conferences and mail polls were also taken.

Routinely, the Board has dealt with various matters arising from its responsibilities, or brought to its attention, including correspondence from members, component societies, the AMA and allied organizations. The Board has appointed representatives to attend state and national meetings and conferences of concern to TMA, acted on reports and recommendations of committees, and maintained liaison with allied organizations and various departments of state government.

Additional affairs of the Board were administered through the Executive Committee and the Committees of Finance, Publications, Medical Licensure, Legislation, Exhibits, Long Range Planning, Travel, Confidentiality, Utilization of Medicaid Data, Voluntary Cost Containment, and Impaired Physician. The Board has kept abreast of new developments regarding major health issues. It has considered and recommended programs and procedures to meet TMA's objectives in promoting the science and art of medicine, maintenance of professional ethics, medical education, and the betterment of public health. As the Association's policymaking body during the interim between sessions of the House of Delegates, the Board supervises all property, financial affairs, and personnel employed to conduct the daily business of the Association.

Although the reports of the president, secretary-treasurer, editor, executive director, and committee chairmen detail specific activities related to each office, the Board has been very much involved in the actions and activities of each. Matters pertaining to general administration, finances, long range planning, membership, annual meeting, AMA conventions, *Journal* advertising and publication, exhibits, and legislation were considered and appropriate action taken during regular meetings of the Board.

The Board made a determined effort to have an officer and/or trustee attend as many meetings of component medical societies as possible. Such visits were well received and afforded members the opportunity to discuss areas of concern with an officer or trustee and to question actions or activities of the Board and/or TMA. It is the Board's desire to continue such visits annually and I encourage each component society to make time available for such a visit when the opportunity for scheduling arises.

As previously indicated, highlights of each

Board meeting are abstracted in the *Journal* following the quarterly meetings. The following is a more detailed outline of important items of business brought before the Board and acted upon during the past 12 months.

Second Quarter Meeting—April 14, 1982

The Board:

—Appointed Dr. Ron Overfield to the Committee on Health Planning.
—Appointed Dr. William Buchner to the Advisory Committee to the Auxiliary.
—Appointed Drs. Thurman L. Pedigo, James C. Bradshaw, and Charles W. White to the Committee on Legislation.
—Received a report regarding the X-ray Safety Committee and reappointed the committee.
—Endorsed a resolution from the Tennessee Hospital Association regarding nurse manpower.
—Reappointed the Ad Hoc Committee on Smoking.
—Received for information a report from the IMPACT Committee.
—Reviewed all resolutions to be introduced in the House of Delegates and adopted a position of support or opposition to each.
—Designated Board members and staff to serve as resource representatives to each reference committee.
—Endorsed a recommendation from the Long Term Health Care Committee in support of a program of geriatric education at the University of Tennessee.
—Received a report from the AMA regarding medical licensure.
—Approved appointment of an ad hoc committee to work with state government and the Commissioner of Public Health regarding block grants with representatives of five medical specialty groups concerned with primary care.
—Appointed Drs. C. Eugene Jabbour, H. Trent Vandergriff, and Clarence R. Sanders to serve on the Board of the Tennessee Medical Foundation.
—Appointed Dr. H. V. Braren to serve on the IMPACT Board of Directors, representing the fifth congressional district and Mrs. Cynthia Himmelfarb to represent the TMA Auxiliary.
—Approved the nominations of Drs. Howard R. Foreman, I. L. Arnold, Jr., John H. Burkhart, and Francis H. Cole for appointment to the Board of Medical Examiners.
—Nominated Drs. Carl E. Adams, Charles Clarke, and Ira Pierce for appointment to the Board of Examiners for Nursing Home Administrators.
—Appointed Dr. Daniel J. Scott to serve on the Task Force on Free-Standing Emergency Care Centers.
—Approved participation when requested on a program to upgrade health care in Tennessee jails.
—Approved the 1981 audit as performed by the firm of Ezra Jones and Associates.
—Accepted for information the first quarter operating report.
—Approved awarding Dr. John H. Burkhart a plaque recognizing his 30 consecutive years of service in the TMA House of Delegates.
—Recognized retiring Board members Drs. James C. Bradshaw, and George A. Zirkle, Jr. for their contributions.

Second Quarter Meeting—April 17, 1982

The Board:

—Elected Dr. James T. Galyon as chairman.
—Elected Dr. James R. Royal as vice-chairman.
—Elected Dr. George H. Wood as secretary-treasurer.
—Elected Mr. L. Hadley Williams as assistant secretary-treasurer.
—Elected an Executive Committee and seven committees of the Board.
—Named Board members to serve as division coordinators.
—Named Board members to serve as Liaison to each medical specialty organization.
—Received a report regarding off-shore medical schools and referred the matter to the Hospital Committee for communicating TMA's position to all Tennessee hospitals.
—Named the Memphis Hyatt Regency as the headquarters hotel for the 1985 Annual Meeting.
—Appointed Dr. Patrick Murphy to the TMA-Student Education Fund Board.
—Referred Resolution No. 12-82 to the Committee on Legislation.
—Accepted the resignation of Dr. E. Kent Carter as AMA alternate delegate and named Dr. George Zirkle, Jr. to serve the unexpired term.

Third Quarter Meeting—July 11, 1982

The Board:

—Approved a recommendation from the Nominating Committee than no one serve more than five years on the committee.
—Received a report regarding implementation of Resolution No. 1-82.
—Received a report from the Impaired Physician Committee.
—Authorized the 20th annual rural health conference to be held in Milan.
—Approved a draft of a letter to the FTC and directed that the Executive Committee finalize the matter with the FTC.
—Nominated Drs. Lewis F. Cosby, Hays Mitchell, and James W. Wall to serve on the Crippled Children's Advisory Committee.
—Nominated Drs. Cecil E. Russell, Jr., Paul C. Thompson, and A. P. Kelly to serve on the Medicaid Formulary Advisory Committee.
—Referred a letter from physicians in Hardin County to the councilor for the district regarding their desire to form a new medical society.
—Referred to the Constitution and By-Laws Committee a recommendation that inconsistencies in capitalization and punctuation in the Constitution and By-Laws be corrected.
—Approved endorsement of an Associate Nursing Degree Program at Aquinas Junior College.
—Heard a report from Dr. A. Roy Tyrer, Jr. regarding the June meeting of the AMA House of Delegates.
—Heard from Dr. Phil E. Orpet, Jr. regarding the Tennessee Society of Internal Medicine's attitude toward a Medicaid Demonstration Project for providing care.
—Approved a program to provide discounts to members wishing to purchase typewriters.
—Denied a request from the Student Education Fund Board for a loan of $50,000 and directed the Board to submit a resolution to the House for an additional increase in dues to fund the loan program.
—Directed the Executive Committee to establish priorities for organizations desiring to meet with TMA during the annual meeting.
—Approved the third quarter financial statement.
—Received a report regarding the Pension Equity Act of 1982.
—Directed that all TMA peer review activities cease pending further action by the courts.
—Approved a request for $1,500 for the TMA Auxiliary to a special Christmas Card Project.

Fourth Quarter Meeting—October 3, 1982

The Board:

—Confirmed action by the Executive Committee authorizing advancement of TMA-Student Education Fund dues.
—Nominated Drs. Charles W. White, Edward McCormick Reaves, and Basil A. Bland for appointment to the Medicaid Formulary Advisory Committee.
—Reappointed all current members of the IMPACT Board for one year.
—Appointed Dr. Neil B. Edwards to the EMS Committee.
—Referred a request for establishment of a TMA farm accident exhibit at the Memphis Agri-Center to the Rural Health Committee.
—Deferred endorsement of the Long Term Health Care Committee's recommendation regarding establishment of a foundation for the purpose of receiving and donating funds to medical schools in Tennessee for geriatric education and research.
—Confirmed action by the Executive Committee in response to the Federal Trade Commission.
—Approved a loan of $50,000 to the TMA-Student Education Fund and directed that the SEF Board submit a resolution to the 1983 House of Delegates calling for an additional increase of $15 in dues to be allocated to the Fund.
—Directed that staff secure additional information regarding the establishment of coalitions with the business community statewide.
—Opposed changes in the method of examining physicians for licensure as recommended by the Federation of State Medical Boards.
—Appointed Dr. Oscar McCallum to represent TMA at a meeting to consider changes in the Health Planning Act.
—Received a report regarding the crisis within the Medicaid Program and the fiscal intermediary for the program.
—Received a report that Tennessee would qualify for a sixth AMA delegate based on preliminary figures regarding AMA membership from Tennessee.
—Commended Dr. James E. Hampton for his efforts to create a ministry in Clarksville to aid poor patients.
—Approved the third quarter financial statement.
—Approved a preliminary budget of $881,835 for the 1983 fiscal year.

First Quarter Meeting—January 15-16, 1983

The Board:

—Approved introduction of a resolution calling for the election of two AMA delegates and alternates from each of the three grand divisions.

—Approved an arrangement with State Volunteer Mutual Insurance Company whereby TMA will provide staff services to implement loss prevention programs statewide and for county medical societies.

—Received a report regarding the X-ray Study Committee.

—Endorsed the concept of medicine-business-health care coalitions on a limited statewide basis and encouraged local groups to work together.

—Endorsed the establishment of an independent foundation for geriatric education as recommended by the Long Term Health Care Committee.

—Heard from the chairman of the IMPACT Committee regarding recommendations for improving the committee's work and for additional staff support.

—Referred to the Committee on Legislation proposed legislation from the Tennessee Hospital Association regarding county reimbursement of indigent care.

—Appointed Drs. George A. Zirkle, Jr., Jackson Butterworth, Jr., and David H. Turner as the East Tennessee Nominating Committee.

—Appointed Drs. Lloyd T. Brown, Thurman L. Pedigo, and John K. Wright as the Middle Tennessee Nominating Committee.

—Appointed Drs. Rex A. Amonette, Oscar M. McCallum, and J. Howard Ragsdale as the West Tennessee Nominating Committee.

—Appointed members to all standing and special committees.

—Adopted a position of supporting the Mid-South Foundation for Medical Care for statewide peer review activities pending further action from Washington.

—Named Drs. Eugene W. Fowinkle, George W. Shannon, and A. Roy Tyrer, Jr. to receive the Board's Distinguished Service Award.

—Named Mrs. Nelma Justin, Mrs. Lamar Alexander and Mr. Nelson C. Andrews as recipients of the TMA Community Service Award.

—Reappointed Dr. Robert H. Haralson, Jr. to the TMA-Student Education Fund Board.

—Appointed Dr. Luthur A. Beazley, Jr. to the Board of the Tennessee Medical Foundation.

—Referred a letter from Dr. McCarthy DeMere to the Committee on Legislation.

—Declined an invitation to send a delegate to the U.S. Pharmacopoeial Convention.

—Opposed any change in current law regarding the qualifications of the Commissioner of Public Health.

—Reviewed all resolutions adopted in 1976 for possible reaffirmation and reintroduction in the House of Delegates.

—Received a report regarding the TMA sponsored program in drug prescribing and directed that the ad hoc committee continue the educational aspects of the program with the Department of Public Health.

—Endorsed the recommendations of the Medicine and Religion Committee for the annual meeting breakfast.

—Voted to support legislation designed to improve the operation of the Malpractice Review Board.

—Received a report from State Volunteer Mutual Insurance Company.

—Endorsed recommendations from the Impaired Physician Committee to contract with a physician to serve as medical director and to support a $15 dues increase to fund the program.

—Approved continuation of inviting student leaders from each of the four medical schools to attend the TMA annual meeting.

—Approved the 1982 financial statement and operating report.

—Approved the 1983 budget.

—Approved a recommendation from the TMA Group Insurance Committee regarding an additional option as part of the group life plan.

As evidenced by the lengthy summaries of actions taken by the Board and the Executive Committee, much time and effort have been expended by members of this Board during the past 12 months. This is a dedicated group of individuals who give of their time and talents to the improvement of the Tennessee Medical Association and its ability to serve its members. Attendance at all meetings of the Board and Executive Committee was near 100% throughout the entire year. The business of the Association continues to grow annually which places additional demands upon members of the Board, the Association's officers and staff. Every effort is made by the Board to represent the best interests of physicians and the patients they serve. For this effort, I commend

each member of the Board and our most capable staff. I am extremely proud to have served this past year as chairman.

REFERENCE COMMITTEE C—*reviewed the report of the Board of Trustees, thanked the Board for the conscientious efforts and the time that they have expended during the past year in the performance of their very critical and important duties, and recommended that the report be filed.*

Report of the Secretary-Treasurer

GEORGE H. WOOD, M.D.

The annual audit for the fiscal and calendar year ending Dec. 31, 1982 has been completed and is available for review. The customary examination of Association records was made by Mr. Ezra Jones, certified public accountant, whose report contains a summary of accounting policies and pertinent notes to financial statements along with the financial statements and supporting schedules. The Association uses the fund accounting method by specific purposes on a modified cash basis. The net value of property has been reduced by recording depreciation on a straight-line basis and charged as an expenditure. No provision has been made for income tax on unrelated income that might be assessed by the Internal Revenue Service, nor has any provision been made for possible losses on notes receivable.

Condensed financial reports are appended hereto in order to show the assets, liabilities, revenues, expenditures, and fund balances of the Association. Exceedingly high interest rates during the first half of the year, combined with an increase of 111 dues-paying members, produced total revenue greater than projected. Investment income of $207,000 accounted for 27% of total revenue, and the operating fund balance increased by about $107,000. This maintains the fund, based upon 1983 projected expenditures, above the traditionally conservative level of 18 months. We cannot expect to enjoy the continued luxury of sizeable annual surpluses, however, in the current financial environment.

Our Association remains financially sound and its resources are being well managed.

TENNESSEE MEDICAL ASSOCIATION FUND BALANCE SHEET

	Year ended December 31 1982	1981
OPERATING FUND		
ASSETS		
Cash	$ 189,217.23	$ 93,135.57
Certificates of Deposit	1,550,000.00	1,600,000.00
Accrued Interest Receivable	28,446.95	73,166.79
Interfund Notes	139,200.00	104,200.00
	$1,906,864.18	$1,870,502.36
LIABILITIES		
Accounts Payable	$	$ 4,416.62
Accrued Payroll Taxes	(33.64)	208.71
Salary Escrow	15,785.52	13,786.96
	15,751.88	18,412.29
DEFERRED CREDITS		
Dues Collection Escrow	371,005.50	439,502.00
FUND BALANCE	1,520,106.80	1,412,588.07
	$1,906,864.18	$1,870,502.36
PROPERTY FUND		
ASSETS (at cost)		
Land	$ 64,803.09	$ 64,803.09
Building	199,743.72	199,743.72
Equipment	108,602.88	98,981.74
Autos	17,412.03	16,075.79
	390,561.72	379,604.34
Less Accumulated Depreciation	103,949.43	90,446.26
FUND BALANCE	$ 286,612.29	$ 289,158.08

TENNESSEE MEDICAL ASSOCIATION JOURNAL INCOME AND EXPENSE Year Ended December 31, 1982

	Total	Readership	Advertising
INCOME			
Association of Dues	$ 56,436.00	$56,436.00	$
Advertising	46,570.72		46,570.72
Subscriptions	1,999.00	1,999.00	
	105,005.72	58,435.00	46,570.72
DIRECT EXPENSES			
Printing and Distribution	90,109.36	54,424.70	35,684.66
Editor and Board	3,908.50	3,908.50	
Clerical Assistance	600.00	600.00	
Clipping Service	994.60	994.60	
Salaries	16,797.18	8,398.59	8,398.59
Employee Insurance	677.18	338.84	338.84
Taxes	1,125.52	562.76	562.76
Supplies	102.38	102.38	
Staff Travel	714.49	357.25	357.24
Overhead	20,933.93	13,955.64	6,978.29
	135,963.64	83,643.26	52,320.38
EXCESS EXPENSES	$ 30,957.92	$25,208.26	$ 5,749.66

TENNESSEE MEDICAL ASSOCIATION OPERATING FUND STATEMENT OF REVENUES, EXPENDITURES AND FUND BALANCE

	Year Ended December 31 1982	1981
REVENUES		
Dues TMA (net of 56,436.00 to Journal)	$ 531,941.00	$ 528,462.00
Annual Meeting—Exhibits	17,705.00	21,700.00
Annual Meeting—Tickets	5,140.00	6,651.00
Investment Income	207,348.51	223,801.44
AMA Fees for Dues Collection	2,818.44	9,172.35
Miscellaneous		477.04
History Orders	485.00	3,835.40
	765,437.95	794,099.23
EXPENDITURES		
Administrative	379,767.69	349,655.65
AMA Delegates	28,704.38	15,566.65
Annual Meeting	28,500.87	34,770.79
Administrative Support & Services	17,117.21	34,826.46
Committee Expense	21,110.18	14,640.95
Headquarters Building	17,559.51	15,949.33
Legislative Expense	20,936.63	18,855.50
Other Organizations	9,449.00	9,405.00
Taxes	24,300.73	19,613.12
Travel—Staff	26,391.14	23,519.58
Contingencies	14,403.75	4,207.15
Miscellaneous		23,496.54
Capital Expenditures	17,100.53	62,767.96
Officers	21,619.68	18,991.20
	626,961.30	646,265.88
Excess Revenues Over Expenditures	138,476.65	147,833.35
Excess Journal Costs	(30,957.92)	(20,133.12)
Net Income	107,518.73	127,700.23
FUND BALANCE		
Beginning	1,412,588.07	1,284,887.84
Ending	$1,520,106.80	$1,412,588.07

REFERENCE COMMITTEE C—*reviewed the report of the secretary-treasurer, agreed that at the present time the financial status of the Association is on extremely solid ground, and recommended that the report be filed.*

Report of the Judicial Council

THURMAN L. PEDIGO, M.D., *Chairman*

The Judicial Council has received and accepted the annual reports of the 49 component medical societies and they are in order. Thus, according to the By-Laws adopted by this House, delegates elected by each component society are eligible to be seated.

The Council has held three formal meetings this past year. Numerous inquiries came to the attention of the individual councilors and the majority of those received appropriate disposition locally without review of the full Council. By and large, the local medical societies have been able to resolve ethical problems without consultation or referral action by the entire Council. For this they are to be commended.

There were several situations that did require full Council review and action. The summary of these key issues follows:

- The Council received and investigated a complaint from Marshall County against one of its members. This situation is under advisement under the guidance of the TMA legal counsel and staff attorney.
- Action was taken regarding the use of coupons in yellow pages of the telephone directory. The Council determined that this mode of advertising was in itself not unethical. However, the Council advised that physician advertising, regardless of the medium, must be done without deceiving or misleading the public.
- The Council issued an opinion that it was not unethical for physicians to offer their medical services free of charge and the recipient of that service would receive such by being the lowest bidder at an auction. This situation was promoted by a volunteer organization which raised money by auctioning of such services.
- The Council reaffirmed its position that physicians who refuse to release medical records because of an unpaid bill are in violation of established medical ethics.

An ever-increasing number of inquiries both at the local society and state association involve physicians and their medical records. To clarify and establish ethical policy regarding medical records, the Judicial Council has submitted to this House of Delegates Resolution No. 2-83 for its consideration. We trust that each member of the House has reviewed this resolution carefully and we urge that it be adopted.

It also came to the attention of the Judicial Council that there were two counties in Council District 1 that were considering changing their affiliation which now exists with multi-county societies. Counties wishing to change their society status must do so with the consent of the coun-

cilor involved.

In West Tennessee, Hardin County physicians desire to withdraw from the Consolidated Medical Assembly of West Tennessee and have petitioned the House of Delegates for the Hardin County Medical Society. This has been approved by the judicial councilor for District 8, Dr. James T. Craig, Jr., and accepted by the entire Judicial Council.

It has been my privilege to serve as chairman of the Judicial Council for the past year and I personally wish to thank each councilor and the component medical societies for their excellent cooperation.

REFERENCE COMMITTEE C—*reviewed the report of the Judicial Council, extended its appreciation to members of the Council, and recommended that the report be filed.*

Report of the Executive Director

MR. L. HADLEY WILLIAMS

I am pleased once again to report to this House the overall condition of the Association as well as the work that has been accomplished during the past year. This is my seventh such report and I am entering my 21st year as a member of the TMA staff.

As I have communicated in almost every year's report, the pace of activity, the amount of involvement and the work to be done increases annually. Forward strides have been accomplished legislatively, financially and medically as well as in other aspects. Management of the Association in today's ever-changing environment offers many challenges. Social changes, public demand and patient expectations, changes in delivery patterns, competition both from within the ranks and from out, are challenges to be faced. Serving an ever-increasing number of new members in these and other areas must receive the highest priority.

Finances

The financial condition of the Association is sound at the present time. There are, however, factors and conditions that loom ahead that must be recognized if this favorable condition is to be maintained. Except for a $10 increase specifically earmarked for the Student Education Fund, this House has not been asked to increase membership dues since 1976. Having survived the past seven years of spiraling inflation in every aspect of the Association's operation on the same amount of dues dollars paid by members in 1977 is, in my opinion, a somewhat remarkable accomplishment. Anyone would be hard pressed to name anything that has not increased in cost during the same period. Only one other state medical association in the nation has lower annual dues than TMA. But, I must hasten to add, the honeymoon may soon be over. All-time high interest rates plus an annual increase in dues paying members has enabled us to maintain the status quo. Interest rates, as everyone here is fully aware, are now less than half what they were only a short time ago. The effect of this trend will be quickly felt by TMA. In 1981 and 1982, 28% of TMA's total income revenue was derived from investment income. Without this income, TMA would have finished 1982 with a deficit of more than $100,000. Our estimates for the current year, projecting current rates of interest, is expected to create a $28,000 shortfall at the end of the current fiscal year. The reduction of reserves and subsequent loss of investment income will have to be faced in the very near future.

Experts in the field of association management suggest reserves equal to one and one-half times an organization's annual budget as a conservative benchmark for a sound financial base. TMA has been able to maintain this ratio and will again, based on 1983 projections. However, budget increases in the future without a corresponding increase in income will reduce TMA's ability to maintain this conservative position and to remain financially sound.

Membership

As previously indicated, a steady annual growth in membership has been accomplished. Through the efforts of the American Medical Association's direct membership campaign last year, 1,392 physicians and students from Tennessee joined AMA on a direct basis. As a result, Tennessee qualified for its sixth delegate to the AMA House of Delegates and that additional voice in policymaking on the national level will be heard beginning this year.

The following is a summary of membership figures for the past year as well as for several previous years for comparison purposes.

TMA MEMBERSHIP REPORT
As of December 31, 1982

	1982	1981	1980	1979	1978
Dues Paying Active Members	4,616	4,519	4,419	4,306	4,217
Dues Paying Resident Members	87	73	65	80	68
Dues Exempt Members	611	490	427	387	354
Veteran Status . . .346					
Military, Disabled and Retired. . . .147					
Students. 118					
TOTAL	5,314	5,082	4,911	4,773	4,571
Deaths	39	41	36	32	32

AMA members from Tennessee Medical Association:

Dues Paying	3,621
Dues Exempt	439
Direct Members	1,392
TOTAL AMA MEMBERS	5,452

(76% of TMA members are also AMA members)

Staff

I am pleased to take this opportunity to introduce the latest addition to the TMA staff. Ms. Lyn Lenahan joined TMA the first of the year as Coordinator of Loss Prevention Programs being conducted in conjunction with State Volunteer Mutual Insurance Company. The TMA Board authorized the establishment of an arrangement with SVMIC to provide administrative services and to coordinate efforts to develop and provide programs of continuing education in the area of loss prevention for county medical societies. The first seminar for this year was conducted in Memphis last month with more than 500 physicians in attendance. The second will be held this Sunday here at Opryland Hotel.

The employment of Ms. Lenahan and her secretary gives TMA a full-time professional staff of 18. Space in the headquarters office building is now being utilized to the fullest, with no additional office space available for further staff expansion or future needs.

TMA has been extremely fortunate over the years in obtaining staff members who are loyal, dedicated and efficient. The staff represents many years of experience in medical association work and members of the current staff have well over 100 years of combined service to TMA. I express my deep appreciation to all members of our staff for their continued devotion to duty and dedication to their responsibilities.

The Future

The challenges of the future facing medicine and individual practitioners demand a strong and unified state medical association and American Medical Association. These are the organizations that can and do speak for physicians and address the issues on their behalf. Competition is now the name of the game. Competition between physicians, competition between physicians and health care facilities and competition between physicians and ancillary providers will be the major issues.

TMA's leadership during the past year has been in extremely capable hands and Dr. George Holcomb has responded to every call as the Association's most able president. I am most appreciative of his support, advice and counsel and that of the Board of Trustees given to me personally as well as to the entire staff during the past year. We look forward to a new year of activity and work with the incoming president, Dr. Nat Hyder, and feel confident that the gavel will once again rest in the hands of a capable, dedicated leader for Tennessee physicians.

REFERENCE COMMITTEE C—*reviewed the report of the executive director, thanked Mr. Williams and his entire staff for their marvelous leadership in conducting the day-to-day affairs of the Association, and recommended that the report be filed.*

Committee Reports

The following standing and special committees made annual reports to the House of Delegates:

—Committee on Scientific Affairs
—Committee on Legislation
—Committee on Governmental Medical Services
—Committee on TMA Group Insurance
—Committee on Constitution and By-Laws
—Committee on Hospitals
—Committee on Peer Review
—Committee on Communications and Public Service
—Committee on Continuing Medical Education
—Mediation Committee
—Committee on Blood Banks and Medical Laboratories
—Committee on Rural Health
—Committee on Emergency Medical Services
—Advisory Committee to TMA Auxiliary
—Committee on Mental Health
—Committee on Medicine and Religion
—Committee on Maternal and Child Care
—Impaired Physician Committee
—Committee on Health Planning
—Primary Health Care Clinics Committee
—Committee on Long Term Health Care



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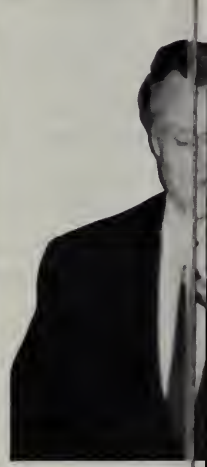
TENNESSEE MEDICAL ASSOCIATION

148th Annual Meeting

Nashville, Tennessee
April, 1983


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1) Outgoing TMA president Dr. George W. Holcomb, Jr., Nashville (right) relinquishing gavel to incoming President Dr. Nat E. Hyder, Jr., Johnson City. 2) Outstanding Physician of the Year Award recipient Dr. Amos Christie, Nashville (left) with Dr. Charles E. Allen, Johnson City, Speaker of the TMA House of Delegates. 3) A Commendation Award was given to Dr. John H. Burkhart, Knoxville, recognizing his 30 years of consecutive attendance at the TMA House of Delegates meetings. 4) Distinguished Service Award is presented to Dr. Eugene W. Fowinkle, Nashville (right) by Dr. James T. Galyon, Memphis, TMA Board Chairman. 5) Distinguished Service Award recipient Dr. George W. Shannon, Jackson. 6) Distinguished Service Award recipient Dr. A. Roy Tyrer, Jr., Memphis. 7) One of the highlights of the exhibits was Roby Ipsco, the friendly Insurance Planning and Service Company robot. 8) Community Service Award recipient Mrs. Lamar Alexander, Nashville. 9) Community Service Award recipient Mrs. Nelma Justin, McMinnville. 10) Community Service Award recipient Mr. Nelson C. Andrews, Nashville. 11) Dr. Holcomb (left) is assisted by Mrs. Roseann Painter, Memphis, chairman of the TMA Auxiliary AMA-ERF Committee, in presenting AMA-ERF checks to (from left) Drs. Henry Moses, Meharry Medical College, Nashville; John E. Chapman, Vanderbilt University, Nashville; Herschel L. Douglas, East Tennessee State University, Johnson City; George H. Wood, UT Memorial Research Center and Hospital, Knoxville; R. Phillip Burns, UT Clinical Education Center, Chattanooga. Not shown is Dr. Robert L. Summitt, UT Center for the Health Sciences, Memphis. 12) Outgoing TMA Auxiliary President Mrs. James Pate, Memphis (left) with Mrs. Betty Payne, AMA Auxiliary President. 13) IMPACT luncheon speaker Mr. Douglas Kiker, NBC News Correspondent. 14) Health Project Contest (left to right): Mrs. Margaret Jarrell, teacher; Joann Miller, Dee Long, Jennifer Winningham, and Tammy Randall, students; and Mr. Ted Frisby, teacher. 15) House of Delegates in session. 16) AMA Immediate Past President Dr. Dan Cloud addressing the House. 17) Medicine and Religion Breakfast speaker Dr. Angus Crook, Nashville. 18) Medicine and Religion Breakfast speaker Dr. Jack Willke, Washington, D.C. 19) Entertainer Jeanne Robertson, former Miss North Carolina (foreground), poses Drs. George W. Shannon, Oscar M. McCallum, Allen S. Edmonson, George A. Zirkle, Jr., Tom E. Nesbitt, and Joseph L. Willoughby for the "Mr. TMA" competition.



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1983 TMA Annual Meeting—House of Delegates Composition
First Session: April 13—Second Session: April 16

EX-OFFICIO MEMBERS

OFFICERS

		First Session	Second Session
President	George W. Halcamb, Jr.	Present	Present
President Elect	Nat E. Hyder, Jr.	Present	Present
Vice President	Billy J. Allen	Present	Present
Vice President	Thurman L. Pediga	Present	Present
Vice President	Arden J. Butler, Jr.	Present	Present
Speaker	Charles E. Allen	Present	Present
Vice Speaker	Malcalm R. Lewis	Present	Present

BOARD OF TRUSTEES

James T. Galyan	Present	Present
James R. Rayal	Present	Present
Gearge H. Waad	Present	Present
Jahn L. Sawyers	Present	.....
C. Eugene Jabbour	Present	Present
Clarence R. Sanders	Present	Present
H. Trent Vandergriff	Present	Present
Charles W. White	.....	Present
Luthur A. Beazley, Jr.	Present	.....
Allen S. Edmansan	Present	Present

COUNCILORS

1st District	Jack Butterwarth, Jr.	Present	Present
2nd District	John R. Nelsan, Jr.	Present	.....
3rd District	Paul E. Hawkins	Present	.....
4th District	Thurman L. Pediga	Present	Present
5th District	William M. Yaung	Present	Present
6th District	Ray W. Hester	Present	Present
7th District	Virgil H. Crawder, Jr.	Present	Present
8th District	James T. Craig, Jr.	Present	Present
9th District	Habart H. Beale	Present	Present
10th District	Phillip H. Dirmeyer	Present	Present

PAST PRESIDENTS

R. H. Kampmeier	.....	Present
E. Kent Carter	Present	Present
J. Kelley Avery	Present	Present
C. Gardan Peerman, Jr.	Present	Present
James W. Hays	Present	.....
Gearge W. Zirkle, Jr.	Present	Present

AMA DELEGATES

Thomas K. Ballard	Present	Present
Hamel B. Easan	Present	Present
David H. Turner	Present	Present
Charles B. Tharne	Present	Present
A. Ray Tyrer, Jr.	Present	Present

MEMBER OF AMA JUDICIAL COUNCIL

Jahn H. Burkhart, Chairman	.....	Present

EDITOR OF THE TMA JOURNAL

Jahn B. Thamisan	Present	Present

PAST PRESIDENT OF THE AMA

Tam E. Nesbitt	.....	Present

DELEGATES

EAST TENNESSEE GRAND DIVISION

County Society		First Session	Second Session
BLOUNT	Marvin D. Petersan	Present	Present
	Jahn J. Ingram	Present	Present
BRADLEY	Hays Mitchell	Present	Present
	Harris Pierce	Present	Present
CAMPBELL	Jahn Brewer	Present	Present
CHATTANOOGA-HAMILTON	J. Edwin Strickland	Present	Present
	Pete Sateres	Present	Present
	William E. Rawe	Present	Present
	Waadruff A. Banks	Present	Present
	William F. Buchner	Present	Present
	R. Phillip Burns	Present	Present
	C. Rabert Clark	Present	Present
	David P. Hall	Present	.....
	Samuel S. Binder	.....	Present
	Alfred P. Ragers	Present	.....
	William O. White	.....	Present
	Thamas W. Currey	.....	Present
COCKE	Fred Valentine	.....	.....
CUMBERLAND	Jahn Daugherty	.....	Present
GREENE	Dee Metcalf	Present	Present
KNOXVILLE	Richard L. Habart, Jr.	Present	Present
	James J. Acker	Present	Present
	James B. Bell	Present	Present
	William O. Miller	Present	Present
	James C. Prase	Present	.....
	Ted F. Haase, Jr.	Present	Present
	David Gerkin	.....	Present
	James C. Britt	Present	Present
	Rabert N. Mantgamery	Present	Present
	William R. Sullivan	Present	Present
	Jacab T. Bradsher	.....	Present
LAKEWAY	W. Rabert Granewald	Present	Present
	Phillip L. Fusan	.....	Present
MONROE	Haustan Lawry	Present	Present
ROANE-ANDERSON	A. Julian Ahler	Present	.....
	E. C. Cunningham	Present	.....
	Charles B. Gurney	Present	.....
	William E. Bennett	.....	Present
SCOTT	H. M. Leeds	Present	Present
SEVIER	Vincent B. Talley	.....	Present
SULLIVAN-JOHNSON	Richard D. Baker	Present	Present
	Fred R. Knickerbacker	Present	Present
	Hal Stubbs	Present	Present
	Claude H. Crackett, Jr.	Present	.....
	Billy N. Galden	Present	Present
	J. Lawrence Jayne, Jr.	.....	Present
WASHINGTON CARTER-UNICOI	Clarence E. Gaudling, Jr.	Present	Present
	Duane C. Budd	Present	Present
	Burgin E. Dassett	Present	Present
	Richard L. Elliatt	.....	Present

MIDDLE TENNESSEE GRAND DIVISION

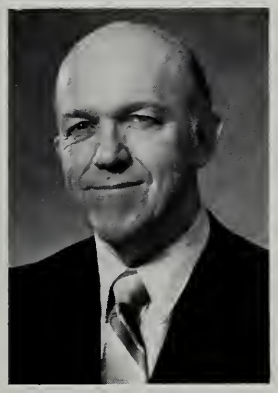
BEDFORD	Jahn S. Derryberry	Present	Present
BENTON-HUMPHREYS	Subhi D. Ali	Present	Present
BUFFALO RIVER VALLEY	Parker D. Elrad	Present	Present
COFFEE	C. H. Webb	.....	Present
DeKALB	Melvin L. Blevins	.....	.....
DICKSON	Jeff Gardan	Present	Present
FRANKLIN	M. David Stacktan	Present	Present
GILES	Charles Burger	.....	.....
LAWRENCE	Carsan Taylar	.....	.....
LINCOLN	David McCauley	Present	Present
MACON	C. C. Chitwaad	.....	.....
MARSHALL	Kenneth J. Phelps, Jr.	Present	Present
MAURY	Gearge A. Fiedler, Jr.	.....	Present
MONTGOMERY	J. E. Hamptan	Present	Present
NASHVILLE	Rabert B. Barnett	Present	.....
	Edmund W. Benz	Present	Present
	Robert C. Dunkerley, Jr.	Present	Present
	Jahn L. Farringer	.....	Present
	C. David. Scheibert	Present	Present
	Sarah H. Sell	Present	.....
	Arville V. Wheeler	Present	.....
	Ranald E. Overfield	Present	Present
	Paul R. Stumb	Present	Present
	Jahn K. Wright	Present	Present
	Edwin B. Andersan, Jr.	Present	Present
	Charles M. Gill	Present	Present
	Rabert W. Ikard	Present	.....
	Jahn W. Lamb	Present	Present
	R. Bentan Adkins	Present	Present
	Frank H. Baehm	.....	Present
	Richard J. Davis	Present	.....
	Samuel H. Dillard, Jr.	.....	Present
	William B. Harwell, Jr.	Present	Present
	Kevin M. O'Brien	Present	Present
	Richard D. Pinsan	.....	Present
	Barrett F. Rasen	Present	Present
	Mark A. Dayne	.....	Present
OVERTON	W. G. Quarles	.....	.....
PUTNAM	Charles Jardan	Present	Present
ROBERTSON	Jahn W. O'Dannell, III	Present	Present
RUTHERFORD	Olin O. Williams	Present	Present
	Charles Gaadman	Present	Present
SMITH	Rabert Murray	.....	.....
SUMNER	Llayd T. Brawn	Present	Present
WARREN	Harry E. Burck	Present	Present
WHITE	Rabert F. Baker	Present	.....
	Dan J. Bramlett	.....	Present
WILLIAMSON	Joseph Willaughby	Present	Present
WILSON	James C. Bradshaw, Jr.	Present	Present

WEST TENNESSEE GRAND DIVISION

CONSOLIDATED	James Dannell	Present	Present
	Jerald White	Present	.....
	Lee Rush	Present	Present
	Oscar M. McCallum	Present	Present
	Mantie E. Smith	Present	Present
HENRY	Jae D. Mabley	Present	Present
MEMPHIS-SHELBY	Rex A. Amanette	Present	Present
	Shed H. Caffey	.....	Present
	Dee J. Canale	Present	Present
	Fenwick W. Chappell	Present	Present
	F. Hammand Cale	Present	Present
	Thamas A. Currey	.....	Present
	McCarthy DeMere	.....	Present
	Albert J. Grabmeyer, III	.....	Present
	Hallis H. Halford, Jr.	Present	Present
	Phil E. Orpet	.....	Present
	James W. Pate	Present	Present
	Phillip A. Pediga	Present	Present
	William Satterfield, Jr.	Present	Present
	Robert L. Summitt	Present	Present
	Charles Kanigsberg	Present	.....
	Charles E. White	Present	Present
	Jesse C. Waadall	Present	Present
	Jahn S. Buchignani, Jr.	.....	Present
	Hugh Francis, Jr.	Present	.....
	Laren A. Crawn	.....	Present
	William D. Falvey	Present	Present
	James C. Fleming	.....	Present
	James C. Hunt	.....	Present
	James A. Mann	Present	Present
	William Maffatt, III	.....	Present
	Patrick J. Murphy	Present	Present
	Jahn E. Outlan	.....	Present
NORTHWEST	James Ragsdale	Present	Present
	J. W. Share	Present	Present
TIPTON	Warren Alexander	Present	Present

The abave infarmatian was taken fram attendance recards signed by the delegates.

president's page



NAT E. HYDER, JR.

Politics Day After Day

Some people might wonder why, in a non-election year, with the General Assembly recessed for the year, and with no burning issues flaming our passions, I am writing about participation in the political process. It is precisely because politics is a continuing process that I am writing this at this time. We cannot allow ourselves to fall into the trap that so many individuals and groups often do—that of "crisis participation." Those who contact their elected officials only when they need their vote or have a crisis situation soon become ineffective in their efforts. We in medicine cannot afford the luxury of such non-participation. Those of you who receive the various publications of the AMA, TMA, and your various specialty societies see daily evidence of the continuous year-round assaults on our individual medical practices.

One area of participation which we cannot ignore is that of political contributions. AMPAC and IMPACT are important and integral parts of our legislative activities as an Association. The effectiveness of our legislative efforts should be evident. If you are not aware of the results of these efforts, you should be.

IMPACT contributed to 64 successful state House candidates of 68 races in which we participated last year. It also contributed to 13 successful state Senate races out of the 16 races. Additionally, AMPAC contributed to seven successful congressional candidates and one senatorial candidate in Tennessee. Over the last three elections, IMPACT has better than a 90% successful contribution record. Although a causal relationship cannot be shown, this is in direct proportion to our recent legislative success.

We must all keep growing continuously and consistently in all areas. This includes the political process. It is in fact a continuous building process which we cannot afford to ignore even in a non-election year.

Can you afford to contribute $40? Can you afford not to? Support medicine. Do yourself a favor. Join IMPACT today!



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tennessee
medical association

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Address organizational matters to L. Hadley Williams, Executive Director, 112 Louise Avenue, Nashville, TN 37203

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JUNE, 1983

editorials

Opryland Interlude— The 148th TMA Annual Meeting

Three years ago, when the Tennessee Medical Association held its annual meeting at the new Opryland Hotel in Nashville, one heard suggestions—and indeed there was a movement to accomplish it—that this beautiful, convenient facility become the meeting's permanent home. Just as when some years back the same suggestion was made about Gatlinburg, the most vocal opposition came from the local delegation. Opryland is without question already unbeatable as a meeting site, and when the portion now under construction is completed sometime later this year, it will be as fine a convention facility as any in the country, attached to a luxury hotel with few peers. The adjacent theme park is there for the children to enjoy, and an occasional visit to the Grand Ole Opry is a welcome diversion for many. Nevertheless, the Knoxville Dogwood Festival is a sure winner, and Audubon Park in springtime is a sight not to be missed. Not only would fixing the annual meeting place impose an unenviable—indeed, impossible—burden on the host city's medical community, it would deprive us all of a welcome opportunity to tour our splendid state at its loveliest.

The meeting this year was one of the smoothest I can remember. Despite the many attacks these days on medicine from all sides, there were few burning issues before the House, and aside from an occasional somewhat lengthy but usually necessary declamation, the House handled its business with dispatch, meeting its scheduled noon adjournment of the final session with a few minutes to spare. Indeed, the pace was almost leisurely throughout, without the pressing urge that sometimes assails the House near closing time, often with coincident ill-considered and hasty action just to get done. The House took time to welcome and be attentive to an address by its distinguished guest, Daniel T. Cloud, M.D., Immediate Past-President of the AMA, a pediatric surgeon from Phoenix, Arizona, who welcomed into the ranks of immediate past-presidents his close friend, George Holcomb, M.D., who had completed his own term of office at a reception and banquet just the previous evening. We will publish that address in a subsequent issue.

Most of the debate, what there was of it, was actually carried out, as it is supposed to be but as it is not always, in reference committee, and with one or two important exceptions, the House followed the recommendations of the four committees, which had done their work well. Much of the debate on the floor was necessitated by the inability of interested parties to be present at the committee hearings, and since there were only 14 resolutions and two by-laws changes to be

considered, the business of the House proceeded smoothly.

What was somewhat surprising, but at the same time gratifying, considering the object of the projected funding, was that without dissent the House voted two $15 dues increases. The first of the two, in response to Resolution No. 3-83, was imposed for building up the TMA Student Education Fund, established in 1963 to financially assist needy medical students enrolled in a Tennessee medical school. Since the resolution, which was initiated by the Board of Trustees, is published elsewhere in this issue, I shall not comment further, except to say that the financial burden on medical students and their families has become awesome at the same time that available funds are dwindling. This fund will not assist applicants to be accepted into medical school, and applicants can not count on it as a source of funds, as it can be used only for those who are already enrolled and who apply for aid.

The other dues increase of $15 was in response to Resolution No. 4-83, initiated by the TMA Impaired Physician Committee. The committee's report (No. 23) detailed an impressive record of reclamation of our troubled colleagues during its two years of existence. The work has been carried out by a small number of volunteers, all of them our colleagues and the majority of them rehabilitated physicians. The program to manage the continually increasing workload will require engaging the services of a physician as a part-time medical director. Not only do the rehabilitated physicians put in long hours confronting their impaired colleagues, but they are contributing, some of them heavily, as they are able, to the Impaired Physician Loan Fund, Inc., recently granted tax-exempt status by the IRS. The House apparently shared with the committee the opinion that this small dues increase is a minimum contribution toward what we owe our troubled colleagues. The increase is necessary to keep the program growing, and will do nothing to assist the rehabilitated physician, who often has reached the end of his financial means before accepting help, to reorder his shattered life. Hence the loan fund, which is now accepting tax-exempt gifts from interested parties, which should include all of us, who, but for the grace of God, could ourselves be needing the committee's help.

It is regrettable that space does not permit publication of the reports of the various committees of the Association, as they contain a record of stewardship of the practice of medicine of which we can all be proud. The times are not medicine's best, and the subjects these committees deal with often present problems to which there is no ready, let alone satisfactory, solution; yet they continue to grapple with them to the best advantage they can muster. Some of their work finds its way into reports of the Board of Trustees and the Association's officers, but much of it is regrettably unheralded and unsung. You should sometime take a moment to peruse the committee memberships to find out who is working for you and to whom you should be grateful. The officers and staff are visible. Committee members are not, and they deserve better recognition and support than most of the membership usually gives them.

Too many of our members are members of the Association in name only, and too many of our colleagues do not bother to associate themselves with organized medicine at any level. Now that direct membership in the AMA is available, we find many have joined the AMA that do not belong to their local or state organization. No part of the structure of organized medicine—and this includes, even though some of their members refuse to recognize it, specialty societies—can exist without the others. That medicine fails to speak with a unified voice is at the root of our problems politically and socioeconomically. Those of us who believe in what we are doing must go out and make disciples of our uninvolved colleagues. Whether or not they might wish it, they share with us a common fate. What that fate is depends largely upon society's perception of us, and not upon our perception of ourselves.

J.B.T.

To Be in Tennessee, Now That April's Here

JAMA's Deputy-Editor, M. Therese Southgate, M.D., a superb writer and a favorite of mine, has a piece in the issue dated April 1—a piece entitled, appropriately, "April." She gives some facts, such as that April is the only month with a day set aside especially for fools. She makes some undocumented but likely statements, such as that April is the month to be born.

If she means to be born *in*, the statement, though slightly ungrammatical, nonetheless has meaning for those of us who entered the world in that month. Since she obviously wrote the piece some months back, she doubtless meant it is a month (or was then) yet to be born. This construction is strengthened by her next statement that it is "the month we carry in our arms to be christened in a gown of May." It is apparent she does not prefer April to May—but then, she lives in Chicago.

It would almost appear she does not prefer April to any month at all, as she labels April as the time "to be wherever, at that point in time, one is not." I protest! That is an unwarranted, sweeping generalization.

Looking out the window, at the moment I must confess to finding some merit in Dr. Southgate's musings about April's "wild meteorologic wars," as more than two hours after sunrise my shamrock still has its leaves folded for the night, and about the only light is from lightning flashes. Notwithstanding the gloom, however, jonquils and tulips blossom, and forsythia makes a golden shower over the lawn. It is April 5, and in Nashville the redbuds are full. The dogwood is "a cumin in"—not summer yet, but a promise. The rain that will bring the promised glory has beaten the petals from the Bradford pear blossoms, but in a week or so the azaleas will be flaming across the landscape. Instead of the late blizzard Dr. Southgate speaks of as characteristic of April, this rain is warm. In Tennessee, April showers bring *April* flowers.

Robert Browning, another April-lover, pined for England, "now that April's there." My compliments to Dr. Southgate, and should she wish to be wherever in April she is not, I invite her to try Tennessee.

J.B.T

TMA Members Receive AMA Physician's Recognition Award

Sixteen TMA members qualified for the AMA Physician's Recognition Award during March 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Erman D. Allen, M.D., White Pine
H. R. Anderson, M.D., Nashville
William A. Bryant, M.D., Woodbury
Duane C. Budd, M.D., Johnson City
Clifton W. Emerson, M.D., Nashville
Joseph F. Fisher, M.D., McMinnville
Augustus C. Ford, M.D., Chattanooga
Thomas J. Friddell, M.D., Nashville
Edwin E. Gray, Jr., M.D., Tullahoma
Mark F. Hartley, M.D., Waverly
Gordon J. Jacobs, M.D., McMinnville
Jayant B. Mehta, M.D., Johnson City
Vergil L. Metts, III, M.D., Madison
Joe E. Mitchell, M.D., Bristol
James G. Murphy, M.D., Memphis
A. J. Von Werssowetz, M.D., Chattanooga

in memoriam

Thomas A. Fuller, Jr., age 56. Died March 30, 1983. Graduate of University of Tennessee College of Medicine. Member of Roane-Anderson County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY
Jack Rice, M.D., Maryville
George F. Tolhurst, M.D., Maryville

COFFEE COUNTY MEDICAL SOCIETY
Stephen Bills, M.D., Tullahoma

LAKEWAY MEDICAL SOCIETY
Charles C. Moore, M.D., Bean Station

NASHVILLE ACADEMY OF MEDICINE
Maria Perales, M.D., Brentwood
James D. Riehm, M.D., Bowling Green, KY

(Student Members)

Jeffrey L. Ballard, Nashville
Claudia Lou Clopton, Nashville
Thomas J. Gruber, Nashville
Rachel K. Lenox, Nashville
Matthew Alan Lovitt, Nashville
Michael O. Shoemaker, Nashville

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY
W. C. Griffin, M.D., Kingsport

WARREN COUNTY MEDICAL SOCIETY
Douglas Brandt Haynes, M.D., McMinnville
J. Bruce Pruett, M.D., McMinnville

personal news

Woo-Gill Jeong, M.D., Chattanooga, has been certified as a Diplomate of the American Board of Obstetrics and Gynecology.

Steven M. Tate, M.D., Nashville, has been elected to Fellowship in the American Academy of Pediatrics.

national news

From the AMA's Office in Washington, D.C.

Congress Breathes New Life Into "Baby Doe" Ruling

The Health and Human Services (HHS) regulations designed to protect infants with birth defects was struck down in Washington's federal District Court in April. But the "Baby Doe" controversy showed no signs of quieting as Congress and several states took up the issue in pending and proposed legislation.

U.S. District Court Judge Gerhard A. Gesell ruled that the regulation—which required hospitals to post notices in delivery wards and nurseries publicizing a 24-hour toll-free "hotline" to be used in cases of suspected neglect—was "arbitrary and capricious."

The American Academy of Pediatrics, a plaintiff in the case, had argued that the rule was wrong in both principle and procedure. This position was supported by the AMA in an amicus brief. Four-member investigative squads, alerted by calls on the hotline, have no role in medical decision-making, they said. Plus the regulation went into effect within only 15 days rather than allowing the customary public comment period.

HHS attorneys said the rule did not interfere with medical decision making; instead, it simply intervened when parents' emotional or financial concerns took precedence in these medical decisions. HHS immediately announced it would appeal the case.

As hospitals were removing these notices from their walls, Congress began drafting new legislation that could achieve much the same result. Both the Senate and House worked on bills that would expand the Child Abuse Prevention and Treatment Act to include handicapped infants who are denied food or treatment. House bill H.R. 1904 and Senate bill S. 1003, both amendments to the Act, call for a study to investigate the national incidence of "neglect"; technical assistance and training to states to develop new procedures to ensure that food and care is provided to handicapped infants; establishment of a procedure for persons to report suspected instances of denial of food or treatment; and to open up adoption opportunities for handicapped infants.

Meanwhile, several state legislatures have already drafted their own versions of Baby Doe legislation. Indiana law says that children denied food or treatment shall be considered "in need of services," a classification normally used for abused children. Louisiana's stricter law prohibits any denial of food or treatment except in cases where the child would stay in a permanently comatose state or where the risks outweigh the benefits of treatment. California's resolution with "intent" to protect handicapped newborns has less legal clout. At least four other states—Massachusetts, Arizona, Missouri, and Maryland—have legislation pending.

Supporters of these efforts say they will throw a safety net under the gaping holes in health care for handicapped children. "In the past ten years, there has been a gradual shift in medicine away from protecting these children," said Surgeon General C. Everett Koop, a pediatric surgeon. "The President, Justice Department, and Department of Health and Human Services all agree that the present system is not adequate."

But opponents fear that the rule will force physicians and hospitals to either override parental direction, lose federal funds, or violate state and federal laws. Some say Baby Doe legislation is just another way of furthering the right-to-life goals of the Reagan administration.

The AMA, while supporting reauthorization of the Child Abuse Act, opposes any provisions relating to the care of handicapped infants. Mailgrams describing these provisions were rushed to state medical societies and national specialty groups. The Association believes that such legislation would cause government interference in family and physician decision-making and result in a cumbersome process that would benefit no one.

"Once a government agency has interjected itself into the practice of one medical specialty, that kind of interference could be expanded into other specialties," warns James H. Sammons, M.D., Executive Vice President of the AMA. "Then each of us—physicians and patients—would have our decisions subjected to review."

No More Cuts This Year in Medicare?

The likelihood that Congress will make any more major cuts in Medicare this year diminished in April as the Senate Budget Committee approved a 1984 budget plan that contains less than half the Medicare reductions the Reagan administration has proposed.

The Senate was expected to consider the budget panel's recommendations early in May and, although changes could be made on the Senate floor, most congressional observers did not think that the final resolution for fiscal 1984 would call for Medicare savings substantially higher than those in the committee's proposal.

The Budget Committee's proposal set Medicare savings at $824 million in fiscal 1984 and $9.6 billion over the next five years. This would be in addition to some $10.5 billion in savings projected from the diagnosis-related-groups (DRGs) prospective payment plan enacted earlier this year.

The Senate panel's proposal fell far short of the $1.9 billion in fiscal 1984 cuts and $24.8 billion in five-year savings proposed by the Reagan administration. It is, however, more severe than a House-approved budget resolution that limits Medicare savings to those anticipated from DRGs. Thus, a House-Senate conference to resolve differences between the two proposals is virtually assured. Once final House and Senate action on the budget resolution is completed, the Senate Finance Committee will be assigned the task of recommending program changes to produce the required reductions in spending. It will be looking at two major recommendations:

- To freeze fee allowances for physicians who do not accept Medicare assignment;
- To increase premiums for supplemental medical insurance (SMI). SMI premiums are set at 25% of program costs through 1985. Under the Budget Committee's proposal, the Part B premium would remain at 25% for individuals whose annual incomes are less than $25,000 a year and for couples with incomes of less than $32,000. For those with incomes over those levels, the premium would be increased to 40% of cost.

This would be the first "means test" in Medicare and the income levels are identical to those included in the recent Social Security amendments to determine which beneficiaries will be taxed on benefits.

The recommendation to freeze the fees of physicians who don't accept assignment would produce an estimated $730 million in savings next year and $4.9 billion by fiscal 1988. Increasing the premium for SMI would not generate any savings in fiscal 1984 but would save $3 billion by fiscal 1988.

For Medicaid, the Senate Budget Committee approved cuts of $102 million in fiscal 1984 and $3.3 billion over five years. This compares with $293 million in fiscal 1984 and $3.1 billion in five-year cuts in the administration's plan. The House resolution provides additional money to Medicaid—for a child health assurance program.

For discretionary health programs, the Senate budget panel approved $126 million more than the President is requesting. Most of that is for four health block grants.

Bioethics Commission Dies

The presidential commission entrusted with formulating national policy on medicine's life-or-death issues finally died a quiet death of its own, but members of state and local medical communities say they will pick up where the president's commission left off, adapting its guidelines to fit their own day-to-day problems. The American Medical Association, the American Hospital Association, several specialty societies, and many hospitals have already formed ethical committees.

Supporters of the President's Commission for the Study of Ethical Problems in Medicine say that it may reappear in a less political arena such as the National Academy of Sciences, Hastings Center, or the Kennedy Institute at Georgetown University. If this proposal succeeds in winning House and Senate approval, the commission may begin work as soon as October 1.

Already, the commission's guidelines have influenced health policy. Its definition of death has become law in 13 states and the District of Columbia. Hundreds of hospitals have requested copies of their report describing the decision not to resuscitate. And the Association of American Medical Colleges is reviewing ways to improve the communication skills of future physicians, based on a commission recommendation.

The AMA has created a four-man panel of bioethical specialists to help guide the AMA's Judicial Council. "We regret the recent disbanding of the commission. But there will not be a vacuum. They laid the groundwork, but our panel of specialists has the muscle to get these recommendations into place," says Samuel R. Sherman, M.D., vice chairman of the Judicial Council.

The American Hospital Association (AHA) has also formed a special committee on bioethics, which will review issues such as the denial of care. The AHA generally supports the commission's reports, but believes solutions to ethical problems will not be found on a national level. "Policy development should be made at the local level, by the medical and nursing staff, according to individual circumstances," says an AHA spokesman.

Bioethical committees within specialty societies are setting procedural guidelines for the routine decisions their members must make. For instance, the ethical committee of the American Academy of Neurology has tackled the issue of caring for patients in the "vegetative" state; the American Academy of Pediatrics held

a recent seminar on treatment for the handicapped infant; and the American College of Obstetrics and Gynecology is discussing surrogate mothering, artificial insemination, and distribution of contraceptives to minors.

"Doctors need to take a leadership role in ethical issues," says neurologist Ronald E. Cranford, M.D., of Hennepin County Medical Center in Minneapolis. "If we don't want the simplistic directives of the federal government, we'll have to become involved. Either we can change the laws or they can change us."

AMA Highlights Health Promotion to Congress

In an unusually friendly congressional hearing April 26, AMA Board Chairman Joseph F. Boyle, M.D., got the chance to regale the Senate Committee on Labor and Human Resources with organized medicine's concerns and actions in the areas of disease prevention and health promotion.

Invited to testify by Committee Chairman Orrin G. Hatch (R-UT), Dr. Boyle ticked off a long list of projects and programs undertaken by AMA and physicians over the years that have extended the lifespan of Americans and made this one of the healthiest nations in the world. Among the current projects Boyle cited:

- A strong public information and public service program that emphasizes public awareness of health hazards and encourages healthful life-styles;
- The massive publications and information exchange program of AMA and other medical groups ranging from the *Journal of the American Medical Association* to the frequent scientific conferences held each year;
- Support of public health through legislative and regulatory activities in areas like alcohol and drug abuse, food additives, drunk driving, immunization, cigarette safety and smoking, and prescription drug abuse.

Tighter Rules for Pacemaker Implants

In response to a Senate investigation last year that revealed many needless implantations of pacemakers, the Health Care Financing Administration has announced a clampdown on pacemaker implantation under Medicare.

Seven conditions are now considered inappropriate for implantation, and will not be reimburseable: syncope of undetermined cause; sinus bradycardia without significant symptoms; sinoatrial block or sinus arrest without significant symptoms; prolonged RR intervals with atrial fibrillation or with other causes of transient ventricular pause; bradycardia during sleep; right bundle branch block with left axis deviation without syncope; asymptomatic second-degree AV block.

As techniques in cardiology change, judgments about implantation also will change, HCFA promises. But physicians warn that scrutiny of the newer and most sophisticated pacemakers should continue.

"Of course, we need to decide when to appropriately implant the pacemaker. But we should also decide what type of pacemaker we're implanting. Brand new multiprogrammable or AV sequential pacemakers can cost between $4,000 and $5,000. We need to decide: Do all patients need these? When are they justified?" says Howard S. Friedman, M.D., of Brooklyn Hospital.

. . . And For Specimen Testing

Many health care providers are inappropriately sending specimens to the Center for Disease Control laboratories in Atlanta, because this testing is performed free of charge.

CDC's program is intended to be only a backup—or reference—testing service. Yet an estimated 46% of specimens tested at CDC should have been tested first at state or commercial facilities, says an April report from the U.S. General Accounting Office. This cost federal taxpayers $1.9 million.

An estimated 13% of CDC specimens were tested without any information concerning patient condition or treatment. Thus, CDC testing may cause more elaborate or less precise tests to be performed than would be suggested by the patient's signs and symptoms.

The General Accounting Office has recommended to Health and Human Services Secretary Margaret Heckler that the CDC: screen out all diagnostic tests that should be performed elsewhere; not accept specimens submitted directly from private health care providers unless authorized by both the CDC and laboratory; and charge for all diagnostic testing.

Common Coding/Billing Proposed for Medicaid

A recently proposed Medicaid regulation would require state Medicaid Management Information Systems (MMIS) to use common coding and billing systems, including a coding system based on the AMA's Physicians' Current Procedural Terminology—fourth edition (CPT-4) and a common claim form designed by an AMA-sponsored group.

MMIS is the computer model most state Medicaid agencies use for claims processing. Forty states have an operational MMIS. The federal government will pay 75% of the cost of operating an approved system.

Earlier this year, HHS signed an agreement with the AMA to permit Medicare and Medicaid to use CPT-4. Medicare carriers are already converting to a somewhat modified version of the the CPT-4 called the HCFA Common Procedure Coding System (HCPCS). Under regulations published in the April 19

Federal Register, an approved state MMIS would be required to use the HCPCS as well.

The AMA also sponsored a work group which designed a new common claims form for physicians and other noninstitutional providers. A modified version of the form will be required for Medicare and for an approved MMIS.

The regulations also mandate the use of three other billing and coding systems: the International Classification of Diseases, 9th revision, Clinical Modification, (ICD-9-CM) for diagnostic coding; common claim form 1450 for hospital billing; and the provider electronic billing file and record formats now used by Medicare.

announcements

CALENDAR OF MEETINGS

NATIONAL

July 21-23	Society for Pediatric Dermatology, Annual Educational Meeting—Kiawah Island, S.C.
July 21-Aug. 4	National Medical Association—Chicago Marriott, Chicago
Aug. 7-11	American Society for Pharmacology and Experimental Therapeutics—Philadelphia

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References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kramer MJ, Mauriz YR, Robertson TL, Timmes MD: Morphological studies on the effect of subinhibitory and inhibitory doses of sulfamethoxazole-trimethoprim combination on *Escherichia coli.* Presented at the 12th International Congress of Chemotherapy, Florence, Italy, Jul 19-24, 1981. **3.** Spicehandler J *et al: Rev Infect Dis 4*:562-565, Mar-Apr 1982. **4.** Stamey TA: *Pathogenesis and Treatment of Urinary Tract Infections.* Baltimore, Williams & Wilkins, 1980, p. 13. **5.** Ronald AR: *Clin Ther 3*:176-189, Mar 1980. **6.** Cooper J, Brumfitt W, Hamilton-Miller JMT: *J Antimicrob Chemother 6*:231-239, 1980. **7.** Gower PE, Tasker PRW: *Br Med J 1*:684-686, Mar 20, 1976. **8.** Cosgrove MD, Morrow JW: *J Urol 111*:670-672, May 1974. **9.** Iravani A *et al: Antimicrob Agents Chemother 19*:598-604, Apr 1981. **10.** Schaeffer AJ, Flynn S, Jones J: *J Urol 125*:825-827, Jun 1981. **11.** Rous SN: *J Urol 125*:228-229, Feb 1981. **12.** BAC-DATA Medical Information Systems, Inc., Bacteriologic Reports, Winter Series, 1976-82.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, hepatocellular necrosis, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients. *Pregnancy:* Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, hepatocellular necrosis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: *Not recommended for infants less than two months of age.*

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 20. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per tea spoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

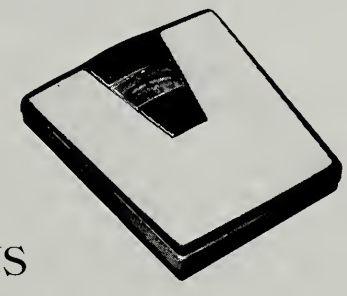
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TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

July 7-9	Vanderbilt/Bowman-Gray Fifth Annual Mountain Meeting, Internal Medicine—Asheville, N.C. (12 hours)
July 16-23	Gynecologic Laser Surgery—Maui, Hawaii (25 hours)
July 19-23	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)
Sept. 15	Annual William F. Orr Lecture in Psychiatry (1 hour)
Sept. 19-23	Internal Medicine Review (40 hours)
Sept. 28-30	Recent Advances in Blood Banking
Oct. 7	Treatment of Chronic Depression (for nonpsychiatrists) (7 hours)
Oct. 13-16	International Surgical Group
Oct. 27-29	New Frontiers in Cancer, Annual Medical Alumni Reunion
Nov. 2-4	Tennessee Public Health Association Annual Meeting
Nov. 2-5	12th Annual Rhamy-Shelly Lectureship in Urology
Nov. 9-11	2nd Tennessee Perinatal Education Conference

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.

General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Doolcy, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

June 29-July 2	Family Practice Update—Opryland Hotel, Nashville
July 31-Aug. 4	"Hands On" Practical Skills Workshop—Paris Landing State Park
Sept. 14-15	Diabetes Mellitus: Basic and Clinical Considerations
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Oct. 19-21	Cardiology Update—Chattanooga
Nov. 10-11	Sleep Disorders

Knoxville

Oct. 13-15	Obstetrical Office Ultrasound—Gatlinburg
Oct. 20-22	Cancer Concepts '83—Gatlinburg
Oct. 23-25	4th Annual Smoky Mountain Seminar in Ob/Gyn—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

Sept. 1-3	Recent Advances in Cardiovascular Surgery
Sept. 22-24	General Surgery
Sept. 30-Oct. 1	Pulmonary Update
Nov. 10-11	Sleep Disorders

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

IN SURROUNDING STATES

MEDICAL COLLEGE OF VIRGINIA

July 28-30 — Pediatrics at the Beach, 4th Annual Pediatric Primary Care Conference—Cavalier Hotel, Virginia Beach, Va. *Credit:* 12¾ hours AMA Category 1. *Fee:* $250.

For information contact Sheri Rosner, Box 48, MCV Station, Richmond, VA 23298, Tel. (804) 786-0494.

OF SPECIAL INTEREST

MEDICAL COLLEGE OF GEORGIA

July 28-31 — Cardiac and Pulmonary Critical Care Medicine—Kiawah Island Inn, Charleston, S.C. *Credit:* 21 hours AMA Category 1. *Fee:* $325.

For information contact Division of Continuing Education, Medical College of Georgia, Augusta, GA 30912, Tel. (404) 828-3967.

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PENINSULA HOSPITAL

Louisville, Tennessee

Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

Peninsula is fully accredited by the Joint Commission on Accreditation of Hospitals and is a member of the American Hospital Association, Tennessee Hospital Association, Federation of American Hospitals and the National Association of Private Psychiatric Hospitals.

The Professional Staff is composed of psychiatrists, licensed clinical psychologists, psychiatric social workers, psychiatric registered nurses, adjunctive therapists, and mental health workers. This experienced team, together with ancillary hospital workers, provides a dynamic treatment program designed for each individual to bring about change and emotional growth in the patient.

Peninsula provides a special treatment program for alcoholic and drug abuse patients. Another program is designed specifically for adolescents. The adolescent treatment program includes a fully staffed school program. An individual education plan is designed for each adolescent.

A variety of therapeutic programs are scheduled for each patient's day. These include intensive individual psychotherapy, group psychotherapy, community meetings with staff and many collateral activities.

Patients may be referred to Peninsula by their own physician, former patients, or may be self-referred. Voluntary patients as well as those who are directed to the hospital by a court are accepted for treatment. It is desirable for the hospital to receive information from physicians, therapists, family and friends who know the patient. Treatment is individualized based upon the needs of the patient.

Appointments for admission can be made by calling the hospital directly. The phone numbers are:

Knoxville	573-7913
Maryville	983-8216

Highlights of the TMA Board of Trustees Meetings
April 13 and April 16, 1983

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at the first session of its regular second quarter meeting, April 13, 1983.

THE BOARD:

Committee Appointments
(See complete listing of committee appointments published elsewhere in this issue.)

Impaired Physician Loan Fund Board Appointments
Named Drs. Howard W. Thomas, Savannah; William C. Anderson, Nashville; George W. Holcomb, Jr., Nashville; and Charles B. Thorne, Nashville, to the Impaired Physician Loan Fund Board.

Request from Tennessee Hospital Association
Agreed to accept an invitation from the Tennessee Hospital Association requesting TMA cosponsorship of three DRG workshops planned for physicians in Nashville, Knoxville, and Memphis in mid-June.

Tennessee Business-Labor-Health Care Coalition
Appointed Dr. Nat E. Hyder, Jr., as TMA's representative to the Tennessee Business-Labor-Health Care Coalition.

Annual Audit Approval
Approved the formalized audit for 1982 performed by Mr. Ezra Jones, CPA, and the first quarter operating report.

Investment Policy Change
Approved an investment policy that future investments of TMA be limited to $100,000 or to the insured amounts effective at the maturity date of current investments.

Board for Licensing Health Care Facilities Task Force
Nominated Drs. Ronald E. Rosenthal, Nashville, and James C. Prose, Knoxville, to represent TMA on a task force to study and make recommendations regarding the designation of levels of care in hospital trauma centers.

Recognition of Retiring Board Members
Plaques were presented to Drs. Allen S. Edmonson, James T. Galyon, James R. Royal, John L. Sawyers, and George H. Wood in recognition of their service to TMA as members of the Board of Trustees.

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at the second session of its regular second quarter meeting, April 16, 1983.

THE BOARD:

Election Results
Elected Dr. Clarence R. Sanders, M.D., Gallatin, as chairman of the Board of Trustees and Dr. H. Trent Vandergriff, M.D., Maryville, as vice chairman of the Board. Dr. C. Eugene Jabbour, Memphis, was elected secretary-treasurer, and Mr. L. Hadley Williams was reelected assistant secretary-treasurer.

Elected as the Board's Executive Committee were Drs. Nat E. Hyder, Jr., Johnson City, Chairman; Thomas K. Ballard, M.D., Jackson; George W. Holcomb, Jr., Nashville; C. Eugene Jabbour, Memphis; and Clarence R. Sanders, Gallatin.

Elected as the Finance Committee of the Board were Drs. C. Eugene Jabbour, Memphis, Chairman; Thurman L. Pedigo, McMinnville; and Charles W. White, Lexington.

Nominating Committee Policy
Reaffirmed the policy of not appointing Board members to serve on the Nominating Committee.

Future Elections of AMA Delegates and Alternates
Referred to the Committee on Constitution and By-Laws a By-Law addition regarding future elections for AMA delegates and alternates.

IMPACT Sustaining Membership
Agreed to send a letter of solicitation concerning sustaining membership to newly elected Board members, encouraging support of IMPACT.

IMPACT Board Appointment
Appointed Dr. James R. Royal, Chattanooga, to serve on the IMPACT Board.

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Tennessee Medical Association Membership Statistics—June, 1983

Carolyn Sandlin
TMA Membership Department

The Tennessee Medical Association has completed the first year as the beneficiary of an in-house computer system. This system can store and provide information to assist TMA members and service organizations around the state.

The data now on file have been obtained from three sources: from the physician members, from the master file of the American Medical Association, and from the Licensing Board of the Healing Arts for the State of Tennessee. In an effort to keep the files correct and current, each member will receive a profile of the information currently maintained in the TMA data bank. The first profile update will be sent to each TMA member this summer. Members will be asked to add new information and make any necessary changes to the current data.

Figure 1 shows that 59% of the TMA members are graduates of Tennessee medical schools, and *Figure 2* lists all medical schools in the United States and Canada represented in the TMA membership.

Figure 3 provides a study in age distribution. Physicians in the 35 to 45 age group comprise 28% of the total membership with the 65-and-over group comprising 13%.

Figure 4 gives the number of physicians in the listed specialties. This list includes only the primary specialty indicated by the physician member or listed as the physician's specialty by the Licensing Board of the Healing Arts for the State of Tennessee.

There are 237 female members, representing 5% of the membership.

In future years, the Tennessee Medical Association will be able to make comparisons of statistical changes and provide studies that will support decision-making for practicing physicians and organized medicine at all levels.

FIGURE 1

TMA MEMBERSHIP PROFILE BY LOCATION OF MEDICAL EDUCATION

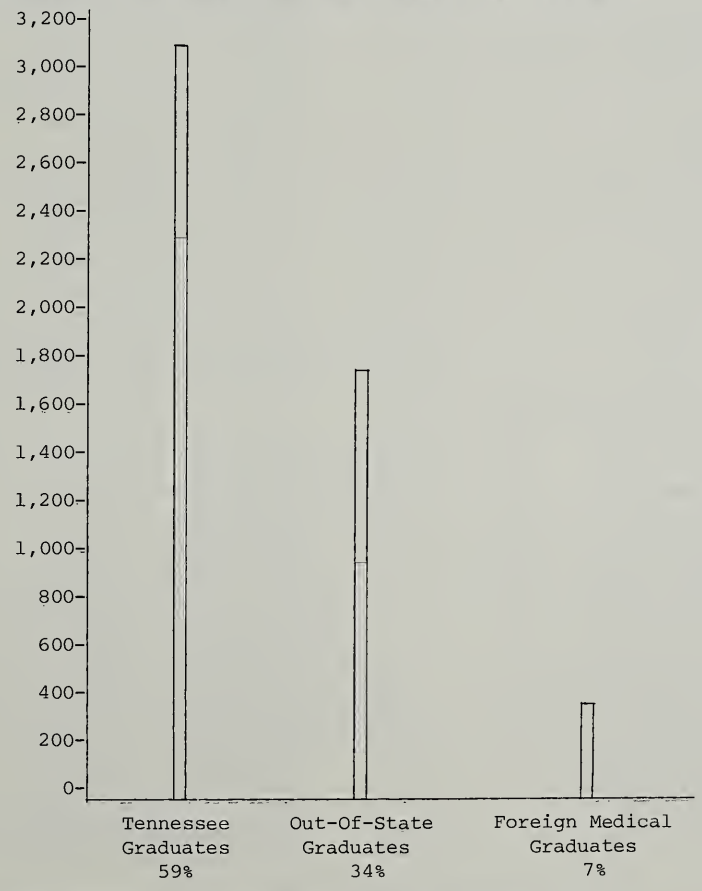


FIGURE 2

MEDICAL SCHOOLS IN UNITED STATES AND CANADA REPRESENTED IN TMA MEMBERSHIP

University of Tennessee/Tennessee	2,437
Vanderbilt University/Tennessee	589
Tulane University/Louisiana	102
Loma Linda University/California	78
University of Virginia/Virginia	76
Meharry Medical College/Tennessee	73
Emory University/Georgia	73
University of Louisville/Kentucky	72
University of Arkansas/Arkansas	64
Duke University/North Carolina	63
Medical College of Georgia/Georgia	61
Medical College of Virginia/Virginia	55
Johns Hopkins University/Maryland	55
University of Mississippi/Mississippi	52
Harvard Medical School/Massachusetts	45
University of Pennsylvania/Pennsylvania	45
Washington University/Missouri	43
University of Alabama/Alabama	42
Louisiana State University, New Orleans/Louisiana	39
Indiana University/Indiana	37
University of North Carolina/N. Carolina	37
Bowman-Gray Medical School/N. Carolina	33
Baylor College of Medicine/Texas	32
University of Illinois/Illinois	31
Medical College of S. Carolina/S. Carolina	31
Northwestern University/Illinois	30
Ohio State University/Ohio	27
Jefferson Medical College/Pennsylvania	27
University of Michigan/Michigan	25
George Washington University/Washington, DC	22
Columbia University/New York	21
University of Cincinnati/Ohio	21
Temple University/Pennsylvania	20
University of Texas, Galveston/Texas	19
University of Kansas/Kansas	18
University of Oklahoma/Oklahoma	18
St. Louis University/Missouri	18
University of Rochester/New York	18
University of Kentucky/Kentucky	17
Wayne State University/Michigan	17
University of Maryland/Maryland	16
State Univ. of New York, Brooklyn/New York	16
University of Florida/Florida	15
Case Western Reserve/Ohio	15
Pritzker School of Medicine/Illinois	14
New York University/New York	14
Cornell University/New York	14
University of Pittsburgh/Pennsylvania	14
University of Miami/Florida	13
University of Iowa/Iowa	13
University of Texas, Southwestern/Texas	13
Medical College of Wisconsin/Wisconsin	13
Yale University/Connecticut	12
Georgetown University/Washington, DC	12
West Virginia University/West Virginia	12
University of Wisconsin/Wisconsin	12
McGill University/Canada	11
Loyola University, Stritch/Illinois	10
New York Medical College/New York	9
Howard University/Washington, DC	8
Tufts University/Massachusetts	8
University of Colorado/Colorado	7
University of Minnesota/Minnesota	7
Hahnemann Medical College/Pennsylvania	7
University of Washington/Washington	7
State University of New York, Buffalo/New York	7
University of California/California	6
University of Missouri/Missouri	6
University of Nebraska/Nebraska	6
Albany Medical College/New York	6
Medical College of Pennsylvania/Pennsylvania	6
University of Vermont/Vermont	6
University of Alberta/Canada	6
University of Western Ontario/Canada	5
Boston University/Massachusetts	5
Dalhousie University/Canada	5
Rush Medical College/Illinois	4
Chicago Medical School/Illinois	4
Creighton University/Nebraska	4
State University of New York, Syracuse/New York	4
University of Toronto/Canada	4
University of South Alabama/Alabama	3
University of Southern California/California	3
University of South Florida/Florida	3
Mayo Medical School/Minnesota	3
Mount Sinai School of Medicine/New York	3
University of Oregon/Oregon	3
Pennsylvania State University/Pennsylvania	3
University of Texas, San Antonio/Texas	3
University of Utah/Utah	3
University of Manitoba/Canada	3
University of Ottawa/Canada	3
University of Arizona/Arizona	2
Denver and Gross College/Colorado	2
University of Connecticut/Connecticut	2
Southern Illinois Medical School/Illinois	2
University of British Columbia/Canada	2
Memorial University of Newfoundland/Canada	2
University of California, Irvine/California	1
University of California, San Diego/California	1
The General Medical College/Illinois	1
Physiological Medical College/Indiana	1
Louisiana State University, Shreveport/Louisiana	1
Michigan State University, E. Lansing/Michigan	1
Eclectic Medical University/Missouri	1
College of Medicine, Newark/New Jersey	1
University of New Mexico/New Mexico	1
Albert Einstein College of Medicine/New York	1
University of North Dakota/North Dakota	1
University of Puerto Rico/Puerto Rico	1
University of Texas, Houston/Texas	1
University of Calgary/Canada	1
Queens University/Canada	1
McMaster University/Canada	1
University of Montreal/Canada	1

Foreign Medical Schools 375

FIGURE 3

TMA MEMBERSHIP PROFILE BY AGE

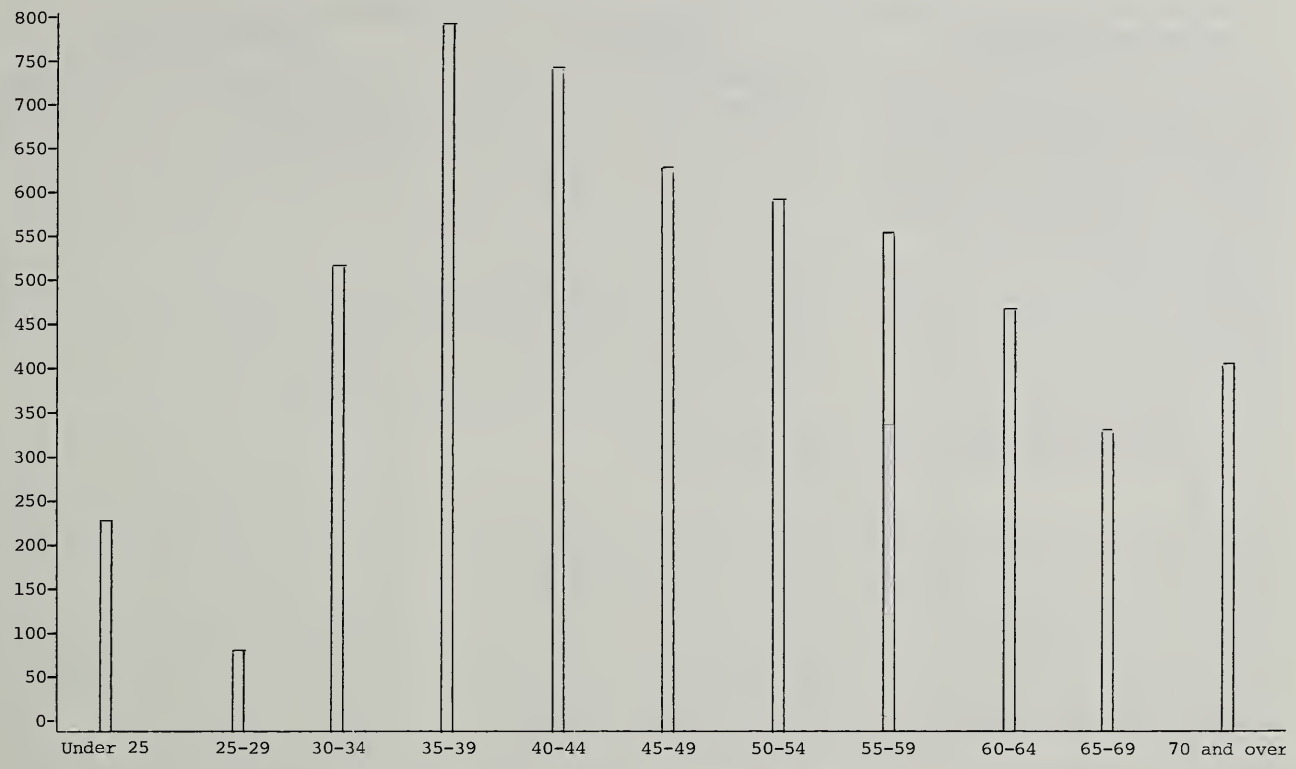


FIGURE 4

NUMBER OF TMA MEMBERS IN LISTED SPECIALTIES*

Internal Medicine	687	Otorhinolarynogology	107	Cardiovascular Surgery	26
Family Practice	497	Cardiovascular Diseases	103	Allergy/Immunology	26
General Surgery	485	Emergency Medicine	92	Rheumatology	18
Obstetrics/Gynecology	375	Neurological Surgery	74	Nephrology	16
General Practice	338	Dermatology	69	General Preventive Medicine	10
Pediatrics	304	Plastic Surgery	63	Colon & Rectal Surgery	10
Radiology	293	Thoracic Surgery	55	Nuclear Medicine	10
Orthopedic Surgery	231	Gastroenterology	46	Endocrinology	9
Anesthesiology	229	Neurology	44	Hematology	9
Ophthalmology	193	Pulmonary Diseases	39	Pediatric Surgery	9
Psychiatry	195	Occupational Medicine	35	Otology	8
Pathology	178	Public Health	32	Aerospace Medicine	8
Urology	148	Oncology	29		

*Only primary specialties listed in this study.

GROUP INSURANCE PLANS AVAILABLE TO TMA MEMBERS

For Details of Each Plan Contact the Administrator

TYPE OF COVERAGE	COMPANY	ADMINISTRATOR
Group Life Insurance/Accidental Death & Dismemberment/Retired Lives Reserve. Members and spouses $25,000 up to $350,000. Employees of members $10,000 up to $100,000. Accidental death and dismemberment benefit $10,000 up to $250,000.	Great-West Life Assurance Company of Winnipeg, Canada	Insurance Planning & Service Co., Inc. P.O. Box 1109 Chattanooga, TN 37401 Telephone: (800) 572-7389
Hospital and Nurse Expense Insurance Program. $25,000 benefit with deductibles of $300, $500 or $1,000. Surgical benefits optional.	Commercial Insurance Company of Newark, N.J. (A subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
Excess Major Medical Plan. Pays up to $1 million after deductibles of $25,000 or $50,000 have been met.	Sentry Insurance of Stevens Point, Wis. (A Mutual Company)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
In Hospital Protection Insurance. $20 to $80 per day while hospitalized in addition to any other insurance. Spouse, children, and employees eligible.	Commercial Insurance Company of Newark, N.J. (A Subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
24-Hour High Limit Accidental Death & Dismemberment Insurance. $25,000 to $100,000 coverage. May include spouse and children.	Commercial Insurance Company of Newark, N.J. (A Subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
Professional & Premises Liability Insurance. Modified claims-made coverage from $100,000/$300,000 to $5 million/$7 million. Office package—contents, equipment, money, etc.	State Volunteer Mutual Insurance Company	State Volunteer Mutual Insurance Co. P.O. Box 70 Brentwood, TN 37027 Telephone: (615) 377-1999 or (800) 342-2239
Workers' Compensation Insurance. Standard coverage at approved rates with yearly savings opportunity based on claim experience. 35% savings paid in 1982.	Dodson Insurance Group	Mr. Glenn Cross 716 Robert Burns Drive Nashville, TN 37217 Telephone: (615) 361-6280
Disability Income Plan. $1,000 Accidental D&D. Monthly indemnity up to $4,000. Five year accident/five year sickness plan. Lifetime accident coverage and to age 65 for sickness. Optional hospital benefits. Plans also available for employees of members.	Commercial Insurance Company of Newark, N.J. (A Subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
Overhead Expense Insurance. Benefits from $300 to $5,000 per month beginning on 31st day of disability and may continue for up to 24 months. Also provides coverage for equipment leasing.	Continental Casualty Company	John E. Lovelace and Associates, Inc. P.O. Box 452 Brentwood, TN 37027 Telephone: (615) 791-1677
$100,000 Accidental Death & Dismemberment Coverage while a passenger in a licensed passenger aircraft or if struck by any aircraft. TMA membership only. **As a membership service, this insurance is provided by TMA for every member at no cost.**	Reliance Standard Life Insurance Company	Insurance Planning & Service Co., Inc. P.O. Box 1109 Chattanooga, TN 37401 Telephone (800) 572-7389

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THE STORMY PETREL OF THE NAVY

Dr. Ninian Pinkney

An adopted son of Tennessee, Dr. Ninian Pinkney was as colorful as he was contributive to the development of the United States Medical Corps service. He has been described as a conspicuous figure, eccentric and cantankerous, a very lovable character and a stormy petrel, the last in reference to his frankness with his superiors.[1]

Born in Annapolis in 1811 (in a home that later became the site of the first Naval Academy Chapel) and commissioned Assistant Surgeon in the Navy in 1834, Dr. Pinkney served aboard the frigate *Brandywine* in the Mediterranean in 1839, on the station ship in Callao, Peru, in 1841 and on board the frigate *Saranac* in Port-au-Prince, Haiti, in 1850. During these years, he began strenuous and unceasing agitation for appropriate rank for surgeons and other medical personnel serving with the Army and the Navy. He enlisted the support of the American Medical Association, of his brother, Bishop Pinkney of Maryland, and of successive Secretaries of the Navy with whom he was friendly.[1]

Aboard the *Red Rover*

His efforts increased when, at the beginning of the Civil War, he was assigned as fleet surgeon of the Mississippi River Squadron and lived aboard the captured side-wheeler *Red Rover,* which he fitted out as the first Naval Hospital Ship, complete with fully equipped operating room.

In 1863, Dr. Pinkney's *Red Rover* was docked at Memphis, where he established a base hospital and the medical supply depot for 80 vessels of the Mississippi fleet. In Memphis, too, Pinkney enlisted the first female nurses in the Navy.

Before his retirement, Dr. Pinkney lived to see a considerable advance on his goal of status for medical officers. By 1871, surgeons were being given staff grades in the Navy. Pinkney also saw the Naval Medical Corps grow in size to about 150 members, nearly three times the number under his original Memphis command.[1]

It is a proud irony that Tennessee, a state unbounded by an ocean, can nevertheless claim credit for the invaluable services of medical men and women to the history of the United States Naval Services.

Reference: 1. Packard FR: *History of Medicine in the United States,* vol. II. New York, Hafner Publishing Company, 1963, pp. 704-711.



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Seventy-Five Years of the Journal

R. H. KAMPMEIER, M. D.

During the last half of the 19th century there was a gradual movement toward the establishment of county medical societies and their affiliation with the Medical Society of the State of Tennessee. In 1896, Dr. G. C. Savage of Nashville, president of the Society, strongly urged its reorganization, suggesting seven changes for its administration, affiliation of county societies, and membership and scientific programs. One of his seven principles was to "establish a medical journal as the organ of the Society." For years, "Transactions" of the Society had been published annually for distribution to the members of the Society.*

Dr. Savage's proposal was not acceptable to the Society at the moment, and five years were to elapse before Dr. I. A. McSwain of Paris, as president, proposed a radical revision in the Constitution and By-Laws for the reorganization of the Society. Dr. Savage proposed an amendment providing for a monthly journal. These proposals were returned to the Judicial Council and Dr. Savage was appointed to secure a charter.

In 1902, the Judicial Council reported on a *new* Constitution and By-Laws changing the Society to an Association—the *Tennessee State Medical Association*. This was adopted. Thereby members of county societies would become members of the state association and be eligible for membership in the American Medical Association.

Dr. Savage's amendment concerning a journal was not a part of the move for reorganization, however, and this item became a matter of discussion for several years, as is evident from a review of the minutes of the House of Delegates as published in the annual "Transactions." In 1903, Dr. Deering Roberts proposed that he publish the transactions of the Association in his journal, the *Southern Practitioner*. This suggestion was not accepted and a committee was appointed to consider the continued publication of the "Transactions." The following year, at the 1904 meeting, Dr. S. S. Crockett reported for the committee that "it was not deemed prudent at the present time to change the manner of publication of the 'Transactions.' " Nevertheless, a minority report by Dr. LeRoy pointed to the advantages of a monthly journal for the Association, "owned and controlled by its members," rather than an annual volume of "Transactions." He cited favorable opinions by 15 "eminent men" whose state associations published journals. Dr. Savage moved to substitute the minority report for the majority report. After much discussion the matter was referred to the committee, to report the following year on the establishment of a journal to be named by the Association.

In 1905, the same impasse developed—Dr. Crockett again reported that the majority of the committee were against the establishment of a journal. Dr. LeRoy still argued in favor of a journal. The majority report was seconded. Again

* The medical library of Vanderbilt University holds the published "Minutes of the Proceedings of the Medical Society of Tennessee" beginning with "Fourth Annual Meeting," Feb. 6, 1833. The published "Proceedings" continue to 1850 inclusive. Then there is a gap of two years, the annual publication of 1853 being entitled "Transactions." From Hamer's *Centennial History of the Tennessee State Medical Association—1830-1930*, it is evident that meetings were held in Murfreesboro in 1851 and 1852. Did the "Proceedings" remain unpublished for these two years or is the Vanderbilt collection incomplete?

it was amended by Dr. Savage to substitute the minority report for the majority report. An amendment stated "that a referendum be made of these two reports, and that the matter be submitted through the secretary of the House of Delegates to each county medical society, with the request and direction that a vote be taken by the individual members of each county medical society, expressing their preference for or opposition to the establishment of a journal, in lieu of the annual volume of transactions, and that the vote of each county medical society be sent to the secretary of the State Medical Association." This was passed.

In 1906, Dr. Savage again brought up the matter of a journal. He stated all county societies had not reported the results of their referendum but that a majority were in favor of a journal. He then presented a proposition by a Nashville publisher for publishing a journal. After this a Dr. Happel offered amendments to the By-Laws to incorporate Dr. Savage's ideas and proposition. At a later session of the House this motion was tabled.

At the meeting in 1907 the item of a journal was again discussed; 16 delegates voted against the publication of a journal and 15 voted in its favor. It was again moved and passed that a referendum of the county societies be carried out and that no later than February 1908 their delegates should be instructed to vote at the next annual session, for or against. The following questions were to be asked of the membership:

1. Are you in favor of continuing the "Transactions" without additional cost to each member?
2. Are you willing to have a *Journal* and "Transactions" without additional cost to the membership?

At the meeting of the House on April 14, 1908, the secretary's report contained the following sentences:

> I am satisfied, from the reports of the secretaries of various counties, that there is an imperative demand for some medium of exchange between physicians, in order that they may keep in touch with each other, and that county organizations be in closer touch with the State Association. This, in my opinion, can only be accomplished by a State organ, which can report the meetings of county societies from time to time, and thus stimulate the individuals to greater effort. The Secretary, acting under instructions on page 42 (1907) from the minutes of this body, called the attention of each county Secretary to the fact that his society should send its delegate or delegates to this meeting, instructed to vote on this question according to the wishes of its members.

On the following day, Dr. Crockett read the Report of the Committee on Publication of a Journal.

The report included submission to the House of samples of 12 state journals and letters from the 12 editors in answer to an inquiring letter by the committee. These letters confirmed the positive advantages of publishing a state journal, namely:

> The experience of all State Associations publishing their own Journal is a strong advocacy of the plan as a means of increasing the membership, and otherwise enlarging the usefulness and cementing the unity of the profession throughout the State.
>
> That the publication of the State Journal has been a great factor in increasing the number, the efficiency, and the membership of the County Societies, which your Committee conceives to be one of the highest aims of this organization.

Furthermore, the committee added:

> The experience of other State Associations has demonstrated that the advertising pages of the Journal are a source of considerable revenue the first year, and that such revenue increases from year to year until it covers the largest part of the Journal's expenses.
>
> From the experience of other State Societies it is reasonable to suppose that the small increase in the expense of the Journal over the Old Transactions plan, would be easily more than covered by the revenue from the advertising pages.
>
> The present financial condition of this organization is such that the Journal could be published monthly, and a bound copy of the transactions at the end of the year sent to each member, and not depend upon the receipt of a single dollar for advertisements.

The committee then recommended:

> (a) That this House of Delegates provide for the publication of an official Journal, to be known as the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION, and to be published monthly, and a volume of Transactions at end of the year.
>
> (b) That the office of Editor for the first year be filled by the Secretary of this Association, and that the compensation for the combined duties be fixed at $500.00 in lieu of his present salary as Secretary.
>
> (c) As to the management of the Journal, it is recommended that the By-laws be so amended that for the first year the Journal be published by the Committee on Publication.
>
> (d) It is further recommended that proper amendments to the Constitution be introduced at this annual meeting, to be adopted at our 1909 Annual Meeting, providing for the election of three Trustees, one to serve for one year; one to serve for two years; one to serve for three years. Thereafter at each Annual Meeting one Trustee shall be elected to fill the vacancy, no two Trustees being from the same grand division of the State.

Journal

of the Tennessee State Medical Association.

PUBLICATION COMMITTEE:

A. B. COOKE. GEO. H. PRICE, CHAIRMAN. M. M. CULLOM

Vol. I. Nashville, Tenn., June, 1908. No. 1

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A. B. Cooke, M.D. .....Nashville.

Figure 1. Cover page from first issue of the Journal of the Tennessee State Medical Association, volume 1, number 1, June 1908.

(e) That the Trustees be known as the Board of Trustees of the Journal, and be authorized to elect their own chairman (the Secretary of this Association shall also act as Secretary to the Board of Trustees).

(f) The Chairman of the Board of Trustees shall be *ex officio* Treasurer of this Association.

(g) The Board of Trustees shall have the entire control of the publication, policy, financial, and editorial management of the Journal, and shall be authorized and empowered to make all contracts necessary.

(h) That the Chairman of the Board of Trustees, who shall be *ex officio* Treasurer of the Association, be the custodian of all the funds derived from the Journal.

(i) That the Board of Trustees shall hold semiannual meetings, and such other meetings as the business of the Journal may require, subject to the call of the Chairman.

(j) All expenditures of the funds of the Association shall be made by the Board of Trustees, and a full financial report shall be submitted by them to the Annual Meeting of this Association.

A motion to adopt the first section of the committee's recommendations was carried by a vote of 30 in favor and 6 opposed. The remainder of the report was accepted. Thus, a journal for the Association was born and incidental to this, a Board of Trustees was to be established as recommended by the committee. The necessary amendments to the Constitution and By-Laws to implement the management of the journal were introduced to lie over until the 1909 meeting for approval.*

The first issue of the *Journal of the Tennessee State Medical Association* appeared in June of 1908 (Fig. 1). The format of the *Journal* was 6 by 9 inches.

The secretary's report to the House of Delegates in 1909 stated that the first issue of the *Journal* had gone to members of the Association, including those in "unorganized" counties to stimulate the organization of county societies. Copies sent to sister states and to the AMA prompted congratulatory letters. Advertising did not reach the degree anticipated, the main reason for this being the unusual size maintained in the first year because of the agreement to issue a bound volume at the end of the year as with the old "Transactions." It was anticipated that the two-column page introduced in 1909, 7 by 10 inches, would increase the ads. The secretary's report stated that there was no need to continue to bind a volume at the end of the year for the members as was done in 1908.

There is a discrepancy for which I have found no answer. The secretary reported in 1909 that the *Journal* had been issued monthly, yet the bound volume distributed at the end of 1908 contained as its last issue that of January 1909, volume 1, number 8. This issue contained only memorials and a list of members by county societies as well as an alphabetical list of all members. Volume 2, number 1 of the *Journal* for 1909, begins with the May issue. I do not find the issues for February through April, 1909 in the bound set of the *Journal* either in the library of the Association or in that of the Vanderbilt School of Medicine. An editorial in May 1909 advised the members, as noted above, that they would receive monthly issues which should be preserved, since there would be no separate bound volume as was distributed for the year 1908. The editorial furthermore announced that the Board of Trustees had decided to change the form of the *Journal* to that common to the several state journals (Fig. 2).

In an editorial in the final issue of volume 2 of the *Journal*, it was stated that the papers published in the first two volumes represented papers presented at the annual meetings, at Knoxville (1908) and Nashville (1909), and others prepared at the request of the editor to secure sufficient material. Outside sources and reprints of articles from other journals were eschewed, enabling the editor to write, "Thus whatever merit there is in the *Journal* is due to the efforts of the members of this Association." He added that it had been hoped that county societies would use "the *Journal* as a medium to give the profession at large the benefit of work done by individual members of the County Societies" and that these societies would report on activities in their localities. He pled for more attention to these items in the future.

It seems appropriate to review the contents of the first volume of the *Journal* to reveal something of the problems that confronted doctors 75 years ago.

The first issue, June 1908, carried as the leading article, The Presidential Address, "Medical Organization: Its Purposes and Possibilities," by Dr. A. B. Cooke of Nashville. This was followed by the "Minutes of the Seventy-fifth Annual

*It is of interest that as late as 1911, Dr. Petty of Memphis introduced a resolution in the House of Delegates to alter the By-Laws which would discontinue the *Journal* and publish the "Transactions" annually. This was tabled.

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Figure 2. Cover page from new format of the Journal of the Tennessee State Medical Association, volume 2, number 1, May 1909.

Meeting of the Tennessee State Medical Association, held at Knoxville, April 14, 15, and 16, 1908." Scientific papers and items of business were interspersed during the three days. The House of Delegates might meet for an hour before a forenoon or an afternoon session. The editorial pages were given over to a *salutatory* devoted to the new journal and its objectives (Fig. 3). In addition, a note described the Knoxville meeting of the Association, followed by an acknowledgement of the formation of the Southern Medical Association which had held its first session in October of 1907.

Topics addressed in papers published in the first volume covered a wide range: ophthalmia neonatorium; the intramuscular use of mercury salicylate in the treatment of syphilis; snoring and mouth-breathing; obstruction of the ureter; disposition of the appendiceal stump; the diagnosis and treatment of appendiceal infections; colic; tuberculin immunization in the treatment and prevention of tuberculosis; herniotomy; surgery in crushing injuries; uterine hemorrhage; purulent ophthalmia; ethics; a *Symposium* on tuberculosis (the most common cause of death at that time) consisting of six papers: prophylaxis; experimental tuberculosis peritonitis; surgery of tubercular (sic) cervical glands; communicability of tuberculosis; marriage and intermarriage of tuberculosis subjects; bone tuberculosis. A Mr. L. P. Brown, inspector for Tennessee, by request read a paper entitled, "Pure Food and Drug Inspection." Additional papers published dealt with repair of perineal laceration; treatment of disease of frontal sinuses; movable kidney; adenoids; symptoms in disease of the vermiform appendix; dilatation of the stomach; and abdominal operations during pregnancy.

The published abstract of the 1908 meeting of the AMA has historical significance to date the watershed in medical education of this century. There was commendation for the effectiveness of the Council on Pharmacy and Chemistry, established a couple of years earlier, in public education about patent medicines and the reduction in newspaper advertising of nostrums. The year's work of the Council on Medical Education was a continuation of its (1) progress in classifying medical colleges as "acceptable," "doubtful," and "unsatisfactory"; (2) its annual conference with leading educators considering medical education; (3) the collection of data in regard to medical college students and graduates; (4) investigation of preliminary and medical education in Europe; (5) urging requirements in preliminary education in this country to include physics, chemistry, biology and modern languages; and (6) gathering information regarding high schools and universities in their relation to medical education. It was in the fall of that year that the AMA Council on Medical Education invited the Carnegie Foundation to survey medical education, and in December, 1908 the council met with President Pritchett of the Foundation and Abraham Flexner who had been employed by the Foundation for the survey.

Dr. George H. Price of Nashville, secretary of the Association, was listed as editor in the early volumes. The post of secretary-editor was to continue for some decades. Dr. Perry Bromberg succeeded Dr. Price, his name appearing on the masthead in May of 1911. In October 1913 the name of Dr. J. F. Gallagher appears as associate editor. In May 1914 Dr. Olin West became the secretary-editor. The masthead of April 1922 lists Dr. Larkin Smith as editor and secretary. The name of Dr. Gallagher, who had continued to serve as associate editor since 1913, appears alone as secretary-editor in May 1923 to continue until the name of Dr. Shoulders appears on the masthead in March 1927. One year later the name of Dr. H. M. Hardy was added as assistant secretary-editor to Dr. Shoulders. Dr. Gallagher, secretary-editor, suggested in 1924 that this position deserved to be a full-time position. Two years later an amendment to the By-Laws removed the secretary's status from an elective office by the House to the employment of a full-time or part-time secretary by the Board of Trustees. This was followed by the employment of Dr. Harrison Shoulders, who after 17 years in this position resigned in 1945 upon becoming president-elect of the AMA. Dr. W. M. Hardy, assistant secretary-editor, was appointed to fill the vacated position.

In 1950, my name (RHK) was placed in nomination as secretary-editor, which again had become an elective office with the reorganization of the administration of the Association in 1946. For some years the increasing responsibilities imposed upon and/or assumed by organized medicine had led to a growing belief of the need for a full-time lay secretary. Accordingly Mr. V. O. Foster was employed in 1946 as a full-time assistant secretary to Dr. Hardy. In 1950, the Association committed itself to a full-time secretary and

SALUTATORY.

AFTER a thorough consideration of all the points for and against journalizing the transactions of this Association, the House of Delegates, at the Knoxville meeting, April 14-16, decided that the best interests of the profession of the State at large could be met by a journal. This question had been under consideration for several years, and heretofore it was not thought wise to depart from the long-established custom of issuing its transactions in book form; but at this meeting, after having heard what had been done in other States, it was, by a large majority of the delegates representing the direct wishes of their County Societies, decided to begin the issuing of a journal to be known as the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION.

We believe that this is a long step forward in the interests of the individual member, as well as the body of the profession, and hence we desire to call to our aid in this project every physician in the State, believing, as we do, that this will certainly insure the success of the JOURNAL from its very beginning.

The objects of the JOURNAL will be to give all of its subscribers each month the benefit of the views and opinions of the members of this Association, upon some important and pertinent questions involved in the daily contact of professional life; thus putting the profession in close and vital touch.

It will also be the aim of the JOURNAL to help in spreading the influence of the organized profession in those counties of the State, when organization seems to have found but little favor.

In this connection let us say that we especially desire and urgently request every member of the profession, who may be eligible to membership in any County Society in the State, to at once connect himself with his County Society, and thus become a subscriber to the JOURNAL.

In those counties in which there is no society, let us urge the profession to take steps to organize, and thus lend the influence it can exert in those channels calculated to benefit and build up the profession at large.

This is one of the most important functions of the JOURNAL, and was one of the impelling influences which brought about its establishment as an organ of the State Association, which represents the best interest of the profession.

The body of the JOURNAL, for the present, will be made up of the papers and discussions presented at the annual meetings of this Association, with information and reports from the various sections of the State as derived from reports of component County Societies, together with the reports of the business transacted by the House of Delegates, as well as the general sessions of the Association.

When it shall be deemed wise, expedient, and to the best interests of the subscribers, as well as the policy of the JOURNAL, we will publish well-selected articles from our exchanges, hoping thus to place in the hands of our subscribers increased opportunities to keep in touch with our profesional brethren in other States than ours.

It is the desire and the intention of your Publishing Committee to allow nothing of a questionable character to appear either in the reading matter or advertising pages of your JOURNAL, and to this end we will select all material with the view and hope of meeting the wishes of those who, by their confidence in us, have placed us in charge of this most important undertaking.

We earnestly hope, greatly desire, and urgently request that every member of the profession in Tennessee shall come to our help and assist us in establishing a journal of which the Association will be proud, and in which every member will feel a personal interest.

Figure 3. The editorial pages of the June 1908 issue of the *Journal* were given over to a salutatory devoted to the new journal and its objectives.

spelled out his duties. With Mr. Foster's appointment as executive secretary, he became business manager of the *Journal* and became responsible for news of the Association and its component societies. I (RHK), as secretary-editor, had responsibility only for scientific matters and editorials. These changes appeared after the annual session of 1950 and the masthead of the May number of the *Journal* carried for the first time my name as editor. In the following issue appeared the first of Mr. Foster's four yellow pages, in typewritten format, devoted to organizational news, inserted as a mid-section of the *Journal;* it soon became the most read portion of the *Journal*, and was continued for a quarter of a century to the spring of 1975, when a separate mailing, the *TMA Newsletter*, replaced it. Another innovation by Mr. Foster was the establishment of a monthly *President's Letter* which has been continued to date.

Mr. Foster and I collaborated in developing sections within the *Journal* with appropriate logos, experimented with clothing its black and white cover more colorfully, and moved to standard journal size to meet requirements of the advertisers. After Mr. Foster's resignation to join the administration of the Southern Medical Association in 1954, Mr. Jack Ballentine became business manager of the *Journal* along with the increasing burdens of the executive secretary, continuing to his retirement in 1977. Subsequent to this, the post of business manager along with the affairs of the Association have been ably carried on by Mr. Hadley Williams and his staff.

In 1963, with the constitutional change in the name of the Association by deletion of "State" from its official designation, the name of its publication became the *Journal of the Tennessee Medical Association*.

As I assumed the editorship of the *Journal* in 1950, I suggested to the Board of Trustees that the Committee on Scientific Work represent an Editorial Board. In 1955, I requested of the Board appointments as Editoral Board, Drs. Albert Weinstein and Addison Scoville, Jr., of Nashville to aid in providing greater breadth in editorializing on the advances in medicine. Following Dr. Weinstein's death in 1963, Dr. Scoville became first assistant editor and later associate editor. In 1963, I suggested to the Board that the dual position of secretary and editor be separated, the secretary as an elective officer and the editor as an appointee of the Board. This constitutional change was completed in 1964. The Board reappointed me for several three-year terms, and upon such an appointment to end in April of 1972, I accepted with the provision I would resign upon the completion of volume 64 in December 1971. After 22 years as editor, I reasoned that with the rapidly changing events in the delivery of medical care, as noted in my farewell editorial, the editor "should and must be of the generation having a part in the changing pattern, and hopefully assisting in guiding the changes. Therefore, it is an appropriate time for my resignation."

With the appointment of Dr. John B. Thomison in 1972, the *Journal* has profited by innovations and his ability to write interesting and imaginative editorials. Because of alterations in the annual scientific sessions prompted by subspecialization, as reviewed in the recent history of the TMA, a backlog of manuscripts from the annual programs had disappeared to a large degree, requiring the development of a different format of contents today.

For 75 years the *Journal* has had an honorable history and in its earlier years contributed much toward continuing education, before the time when this became a formalized interest of organized medicine. With the proliferation of subspecialization, which developed after WW II, accompanied by an ever-increasing number of subspecialty publications, the *Journal* lost some of its importance. On the national stage, questions have been raised upon occasion as to whether state journals had outlived their function: In 1963, I wrote an editorial entitled "Why a State Journal?" This followed publication of the results of a questionnaire sent to the membership to explore their preferences in reading. It was found that most of the TMA members read two specialty journals as their first and second choice, followed by the *JAMA* and the *JTMA* as either the third or the fourth choice. The editorial presented my reasoning for the maintenance of journals by state associations, reasoning which seems as appropriate today as two decades ago. State journals have continued to be published and I believe will continue to be published into the indefinite future.

As I end this review of the historical background of the *Journal* on its diamond anniversary, I wish for it many more years of fulfilling its functions as it has for these many years.

Improving Care of the Insulin-Requiring Pregnant Diabetic at a Tertiary Care Center

A Preliminary Report

MICHAEL P. DIAMOND, M.D.; SHERON L. SALYER, B.S.N., R.N.C.;
LISA M. FIELDS, B.S.N., R.N.; and FRANK H. BOEHM, M.D.

Introduction

The goal of obstetrical prenatal care is to provide for continuing maternal and fetal well-being culminating in the delivery of a healthy infant. Fulfillment of this aim, while never simple even in "uncomplicated" pregnancies, is complicated further by the potential maternal and fetal derangements frequently associated with diabetic pregnancies. Duncan,[1] in 1882, reported on a series of 22 "puerperal" diabetic pregnancies in 15 women, four of whom died shortly after delivery. The fate of the fetuses was even worse; seven died prior to delivery after reaching a "viable age," while two others were "feeble" and died shortly after birth. During this pre-insulin era, women with diabetes mellitus prior to pregnancy were usually unable to conceive.[2] When pregnancy did occur in these women, it was associated with an increased rate of miscarriage, and was an indication for therapeutic abortion because of the grave prognosis for these women.[2]

Following the identification and isolation of insulin by Banting and Best in 1922,[3] the foundation for improved care of diabetic and gestationally diabetic pregnancies was established. Insulin treatment and diet regulation, along with continual advances in medical management, and evaluation of both maternal and fetal well-being has made maternal death exceedingly rare,[4,5] while markedly diminishing fetal mortality[4-8] and providing for continuing reductions in neonatal morbidity.[4-8]

Assessment and subequently the appropriate management of the pregnant diabetic requires close monitoring and the implementation of new advances in the medical and obstetrical care of these women. This report describes the evolution of management of pregnant diabetics and their infants over a five-year period at Vanderbilt University Hospital (VUH), which serves as a tertiary care referral center for Middle Tennessee, southern Kentucky, and northern Alabama, and represents a preliminary report of the improvement in both maternal and fetal outcome.

Materials and Methods

Patient Selection

The hospital charts of all pregnant insulin-requiring diabetic women who delivered at VUH between Jan. 1, 1977 and Dec. 31, 1981 were retrospectively reviewed, as were the charts of the infants of these diabetic mothers. Information collected included the class of diabetes as determined by White's classification,[4] estimated gestational age on arrival at VUH, and Pedersen's maternal "prognostically bad signs" of diabetic pregnancies, as well as fetal and infant complications.

Insulin requirement for women not receiving insulin prior to gestation was established by fasting and two-hour postprandial glucose levels above 100 mg/dl and 150 mg/dl respectively. This screening test was instituted in any patient with a history of gestational diabetes in a previous pregnancy, a previous late gestational loss, family history of diabetes mellitus, previous baby over 4,000 gm, fetal size greater than that expected from dates, hydramnios, or a history of fetal anomalies.

From the Department of Obstetrics and Gynecology, Vanderbilt University Medical Center, Nashville.

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The "prognostically bad signs" of pregnancy as described by Pedersen[6] are ketoacidosis, pyelonephritis, pregnancy-induced hypertension, and "neglectors." For purposes of this review, "neglectors" are defined as women noted in their hospital chart to have continuously ignored medical advice.

Fetal and infant complications evaluated included death, either in utero or in the nursery, major congenital anomalies, respiratory distress, which was further classified as due to hyaline membrane disease (HMD) or non-HMD causes (as established by the Neonatal Intensive Care Unit criteria),[9] birth injuries, macrosomia (defined as a weight greater than two standard deviations above the average fetal weight at that gestational age), and neonatal hypoglycemia, defined as a glucose level of less than 40 mg/dl in infants 2,000 gm or more and less than 30 mg/dl in infants weighing less than 2,000 gm.

Statistical analysis was performed using the chi-square test.

Management

The current management of pregnant diabetics at VUH is described below. Modifications in management that have occurred during the last five years are described where applicable.

Office Visits: All diabetic patients are seen by an obstetrician once every month during the first trimester of pregnancy, once every two weeks during the second trimester, weekly during the third trimester, and when necessary because of patient problems. Beginning in 1979, each patient has also been seen at each visit by a perinatal research nurse who provides instruction on diabetic self-care with regard to diet and sick-day management, as well as insulin dosage and administration. The nurse speaks with each woman weekly and discusses the blood sugar levels as well as other aspects of patient management. These services further increase the continuity of care, and provide a readily available individual when questions or problems occur.

Diet: Patients are placed on a diet of 2,200 to 2,400 calories/day depending on weight and the patient's needs. Patients are instructed in the use of a diabetic exchange diet, and are counseled by the nutritionists as needed. The diet is divided into 50% to 60% carbohydrate, 20% to 35% fat, and 12% to 20% protein, and usually consists of three meals with three snacks.

Day Curves: Diabetic control is monitored by a portable reflectance photometer or Chemstrips (Bio-Dynamics, Indianapolis, IN) for blood glucose self-monitoring. The patient is instructed regarding the procedure for blood glucose determination as an outpatient. She returns home to perform three evaluation day curves to allow assessment or establishment of insulin dosage. Day curves for blood glucose levels consist of fasting and postprandial levels, and levels two hours after breakfast, lunch and dinner. Thereafter the patient performs day curves weekly in order to assess diabetic control and to allow for adjustment of the insulin dosage. These evaluations are performed in the home, in contrast to the early years of this review, when patients were frequently admitted to the hospital for laboratory evaluation of blood glucose levels.

Insulin Administration: Insulin is given as a mixture of NPH and regular, usually in split doses, with the morning dose being given 30 minutes before breakfast and the evening dose given 30 minutes before dinner. The goal is to achieve a fasting blood sugar of less than 100 mg/dl and a two-hour postprandial level of less than 150 mg/dl, while avoiding ketonuria and hypoglycemia. The initial doses of insulin have an approximate ratio of NPH to regular of 2 to 1 in the morning and an approximate ratio of 1 to 1 in the evening, with the total morning dose twice the evening dose. The doses are then adjusted as needed according to the day curves, which are phoned in weekly to the perinatal research nurse.

Urine Testing: All patients are instructed on urine testing for acetone. The patient checks a voided specimen after awakening on the morning she plans to perform a day curve and immediately reports acetonuria that fails to clear after eating. Patients are also instructed to check for acetonuria when they have an infectious process, are ill, have diarrhea, or vomit.

Urine Cultures: A urine culture is obtained as part of the initial laboratory work on all diabetic patients, and is repeated each trimester thereafter or whenever the patient reports signs or symptoms of a urinary tract infection.

Hemoglobin A_{1c}: Hemoglobin A_{1c} levels are now obtained each trimester on all patients in order to evaluate glucose control over the preceding three months. This test was not available during the early years of this review.

Alpha Fetoprotein: Serum alpha fetoprotein (α-FP) levels are now obtained at 15 to 17 weeks' gestation in all patients to assess possible neural

tube defects. During the early years of this review, α-FP levels were obtained only when there was a history of neural tube defects.

Ophthalmology Consultations: Ophthalmology consultations are now obtained early in the prenatal period, with laser coagulation of retinal vessels performed as recommended by the ophthalmologist.

Nonstress Testing: In the early years of this review, nonstress tests (NSTs) were obtained only once a week. Now, nonstress testing is started at 32 weeks' gestation, and is performed twice a week until delivery.[10] The criterion used is an acceleration of the fetal heart rate of 15 beats a minute for 15 seconds, occurring twice in a ten-minute period. If the NST is nonreactive, an oxytocin challenge test or biophysical profile[11] is performed at that time. Estriols, which were frequently monitored daily during the early years of this review, are no longer obtained.

Ultrasound: An ultrasound scan is performed in the second trimester in order to verify the gestational age. A repeat scan is obtained at 38 weeks prior to amniocentesis, as well as at any time during the prenatal period as indicated.

Amniocentesis: Using ultrasound guidance, amniocentesis is performed at 38 weeks' gestation to assess fetal lung maturity. In the event that an "immature" lung profile is obtained, a repeat amniocentesis is obtained weekly until a "mature" pattern is obtained. Fetal lung maturity in the diabetic patient is defined as a lethicin/sphingomylin (L/S) ratio ≥ 3.5 and the presence of phosphatidylglycerol.

Delivery: Delivery is now elected when the lung profile indicates maturity, unless antenatal or fetal complications necessitate earlier delivery. The mode of delivery is determined by the Bishop score,[12] a scoring system that indicates cervical ripeness. Should vaginal delivery be chosen, constant fetal monitoring is utilized while the patient is induced, using intravenous pitocin administered by a mechanical pump. During labor, the blood sugar is regulated by constant infusion of insulin, usually at a rate of 1 unit/hr, with the blood glucose level assessed every one to two hours using a bedside reflectometer or Chemstrips. Patients with a low Bishop score (≤ 5) are as a rule delivered by primary low transverse cesarean section.

Postpartum Period: After delivery, insulin is withheld until the patient exhibits significant glycosuria (3+ or 4+) or ketonuria. The blood sugar is assessed at that time, and insulin therapy is initiated if hyperglycemia is present. The initial doses are of frequent, small amounts of regular insulin, with the glucose level monitored every four to six hours until euglycemia is obtained. Alternatively, stable diabetics are often given one-half the pre-pregnancy dose with the initiation of oral intake. Frequent blood sugar determinations are utilized in order to evaluate therapy.

Regionalization

Vanderbilt University Hospital is a tertiary referral center for Middle Tennessee and parts of southern Kentucky and northern Alabama. Referrals vary from phone discussions to patient transfer, and occur at all stages of gestation, with needs varying from early prenatal care and insulin administration to the delivery of a fetus at term in a mother with diabetic ketoacidosis (DKA).

The perinatal research nurse program was instituted in 1979 at the same time that the trend toward outpatient management was intensified, thus simultaneously altering diabetic pregnancy management. That year thus creates a natural division for comparison of diabetic care, and was the basis for comparing management during the years 1977-1978 (group 1) with 1980-1981 (group 2). Care during 1979, a transition year, has been excluded from much of the analysis.

Results

During the years 1977-1981, a total of 196 women with diabetes mellitus delivered at VUH of whom 140 required insulin (class B or above). The distribution of these patients among White classes B, C, D, F, G, and R for the years 1977-1978 and 1980-1981 is shown in Table 1, and is

TABLE 1

PREGNANT DIABETIC PATIENT POPULATION

White Classification	Number of Patients 1977-1978	1980-1981
B	17	26
B,G	4	5
C	19	19
C,G	2	1
D	5	2
D,G	0	0
F	2	1
F,G	0	1
R	1	1
TOTAL	50	56

similar in each group. The mode of delivery of these patients was also similar, with cesarean section rates of 64% and 55% respectively (Table 2).

In 1977-1978, the majority of these diabetic women came to VUH at or after 28 weeks of gestation. In contrast, by 1980-1981, with an expanded regionalization program, 26 of 56 women were seen before 20 weeks' gestation, and another 12 women prior to 28 weeks' gestation (Table 3).

Maternal complications during pregnancy in 1977-1978 included DKA in nearly one quarter (12 of 50) of the pregnant diabetics delivered at VUH. In contrast, DKA occurred in only three women in 1980-1981 (Table 4). Although incidence of "neglectors" decreased from six to two in these groups respectively, this difference was not statistically significant. Pregnancy-induced hypertension and pyelonephritis occurred with approximately the same frequency in each group (Table 4).

Alteration in management of diabetic pregnancies as previously described was associated with a reduction in neonatal death from 8 of 50 in 1977-1978 to 3 of 56 in 1980-1981 (NS) (Table 5). Of these, intrauterine fetal death occurred in five women in group 1 and two in group 2, while death in the nursery occurred in three and one infants respectively. The incidence of major congenital anomalies was also reduced (7 of 50 to 2 of 56), although this is not statistically significant. There was only one birth injury, a fractured humerus, during these five years.

The incidence of respiratory distress in these two groups decreased significantly, from 38% to 20% respectively ($P < .03$) (Table 5). This improvement was due to a reduction in the incidence of HMD (9 of 50 to 2 of 56 infants) ($P < .016$). The incidence of non-HMD respiratory distress (such as pulmonary edema) was similar in each group.

TABLE 2

TYPE OF DELIVERY

	Number of Patients	
	1977-1978	1980-1981
Vaginal	18	25
Cesarean section	32	31
TOTAL	50	56

TABLE 3

ESTIMATED WEEKS GESTATION AT INITIAL VISIT TO VUH

	Number of Patients	
Weeks	1977-1978	1980-1981
<20	12	26
20-≤28	8	12
>28	30	18
TOTAL	50	56

Despite close diabetic management, macrosomia was present in approximately 40% of the infants in each group (Table 5). Surprisingly, neonatal hypoglycemia, which had occurred in only six infants in 1977-1978, was present in 21 infants in the years 1980-1981 ($P < .002$).

Discussion

The increased frequency of both maternal and neonatal complications in diabetic pregnancies necessitates close monitoring and precise management of these gestations. Perturbations in metabolic processes, which occur in all pregnancies, are exacerbated in the pregnant diabetic, and are thought to be the basis for the increased frequency of complications.[8] Thus, management of diabetic pregnancies has revolved around creating a metabolic milieu as close as possible to that of a "normal" pregnancy, while developing techniques by which to assess and establish a continued state of fetal well-being.

The metabolic milieu of the mother and fetus is established from the interaction of the maternal dietary intake and insulin administration. Current recommendations for maternal dietary intake include a total caloric intake of approximately 2,200 to 2,400 calories/day, consisting of 50% to 60% carbohydrate, 12% to 20% protein, and 20% to 35% fat.[13] Insulin is administered in divided daily doses of NPH and regular insulin. Assessment of the resultant metabolic milieu is assessed weekly by day curves consisting of fasting and two-hour postprandial glucose levels, which can be performed at home using a reflectometer or Chemstrips. These methods of home glucose monitoring have been shown to be accurate[14,15] and rapid, as well as inexpensive and time saving, when compared to either in-hospital care or traveling to and from a hospital. The

TABLE 4

INCIDENCE OF "PROGNOSTICALLY BAD SIGNS" OF DIABETIC PREGNANCY

	Number of Patients		
	1977-1978	1980-1981	
Diabetic ketocacidosis	12	3	$P<.010$
Pregnancy-induced hypertension	15	12	NS
Pyelonephritis	1	2	NS
"Neglectors"	6	2	NS

weekly day curves are phoned to the perinatal research nurse, who in conjunction with a physician adjusts the insulin dosage on a weekly basis, thus attempting to minimize abberations of the metabolic environment from those seen in "normal" pregnancies. Urine glucose is not used to monitor metabolic control because of the variability in the renal glucose threshold during pregancy[16]; urine is routinely tested for acetone, however, especially during maternal illnesses, and patients are instructed to call immediately if they develop ketonuria.

Long-term assessment of maternal metabolic control is now possible by measurement of HbA_{1c} levels in the maternal blood.[17] HbA_{1c} is a normal, post-translation modification of hemoglobin A, containing a glucose molecule on the N-terminal amino acid of the β-chain, and represents a cumulative assessment of the circulating glucose level during the preceding three months. Thus HbA_{1c} levels tend to be elevated in "poorly controlled" diabetic pregnancies, and can be used to assess the metabolic milieu over a prolonged period. Since elevation of the maternal HbA_{1c} level early in diabetic pregnancies has been associated with major congenital anomalies,[18] it has been suggested that normal HbA_{1c} levels should be attained prior to conception in order to lessen the occurrence of congenital anomalies.

Assessment of fetal well-being includes monitoring at each office visit for the identification of the fetal heart rate and fundal height growth. Beginning at 32 weeks' gestation and continuing until delivery, fetal well-being is further assessed by biweekly nonstress tests. Alpha fetoprotein levels are now obtained in all women at 15-17 weeks' gestation because of the increased risk of neural tube defects in diabetic pregnancies.[19] Neural tube defects can also be screened for by ultrasound, which is obtained early in every gestation in order to verify fetal age. Ultrasound examinations are repeated whenever indicated, and again at approximately 38 weeks' gestation at the time of amniocentesis. Fluid obtained by amniocentesis is tested for both the L/S ratio and phosphatidylglycerol, since the former tends to be less accurate in diabetic pregnancies,[20] while the latter has been found indicative of fetal lung maturity in these gestations.[16]

After the determination of fetal lung maturation, delivery is initiated either by oxytocin induction or cesarean section, as indicated by obstetrical indications and cervical Bishop score. Women undergoing induction receive a continuous infusion of insulin (usually 1 unit/hr) in $D_5$1/4NS. The blood glucose level is monitored every one to two hours by reflectometer or Chemstrips, and the insulin infusion rate adjusted to maintain the blood glucose level at approximately 100 mg/dl. Women who are to undergo elective cesarean section receive no insulin on the morning of delivery.

Postpartum insulin administration is restricted to those individuals who develop hyperglycemia, and is given in small, frequent increments. The establishment of routine daily doses, if needed, is postponed until after the diabetogenic state of pregnancy has resolved.

Associated with the evolution from what might be termed "in-hospital patient care" to "outpatient care," there has been a reduction in the expense of a diabetic pregnancy. This change in mode of management and the other advances in the care of diabetic pregnancies has resulted in an improvement in maternal outcome as assessed by the prognostically bad signs of pregnancy (PBSP). DKA, which occurred in nearly one quarter of insulin-requiring diabetic pregnancies

TABLE 5

INCIDENCE OF NEONATAL COMPLICATIONS IN DIABETIC PREGNANCIES

	1977-1978	1980-1981	
Death	8	3	NS
IUFD	(5)	(2)	NS
In nursery	(3)	(1)	NS
Major congenital anomalies	7	2	NS
Respiratory distress	19	11	$P<.030$
HMD	(9)	(2)	$P<.016$
Non-HMD	(10)	(9)	NS
Birth injuries	0	1	NS
Macrosomia	19	24	NS
Neonatal hypoglycemia	6	21	$P<.002$

in 1977-1978 occurred in only 5% of the diabetic pregnancies in 1980-1981. The incidence of "neglectors" also declined during this time period, although the decline was not statistically significant, possibly because of the small number of individuals in each group. These improvements, while related to metabolic management and glucose monitoring, may be in large part a reflection of the close personal attention and instruction that these women receive from the perinatal research nurse. Such a conclusion would also be consistent with the finding as expected that the occurrence of the other PBSP, pyelonephritis and pregnancy-induced hypertension, were not altered over the five-year period.

Additionally, the improvement in maternal outcome may relate to the earlier entry of pregnant diabetics into obstetrical health care systems, thus minimizing the length of time and the degree to which the fetus is exposed to an abnormal metabolic milieu. Furthermore, the regional referral system has provided pregnant diabetics from the Middle Tennessee, southern Kentucky, and northern Alabama area access to tests that may not be available in some communities.

Fetal outcome also improved during this five-year period. The incidence of respiratory distress was reduced from 38% in 1977-1978 to 20% in 1980-1981 by a reduction in hyaline membrane disease from 18% to 4% respectively. During this period the incidence of neonatal deaths and major congenital anomalies each decreased, although not significantly. Again, the lack of significant decrease may be related to the small number in each group and the improvements in outcome in diabetic pregnancies previously made.

Macrosomia occurred with equal frequency in 1977-1978 and 1980-1981, and was present in approximately 40% of the infants of these diabetic mothers, despite the close antepartum monitoring of diet, insulin dosage, and glucose levels. Surprisingly, the incidence of infant hypoglycemia increased from 12% in 1977-1978 to 38% in 1980-1981. The explanation for this increase is uncertain, but might be attributed to the current increased frequency of testing, resulting in detection of neonatal hypoglycemia that may previously have gone unnoticed. Thus, associated with the reduction in pregnancy expenses and the improvement of maternal outcome there was a reduction in the grave consequences to which the infants of diabetic mothers are exposed.

In summary, the dire maternal and fetal consequences of diabetic pregnancies found in the pre-insulin era have been markedly reduced by the advancing medical management and obstetrical assessment of these women and their infants. On the other hand, each is still at increased risks for poor outcome compared to a non-diabetic pregnancy. Over the recent five-year period 1977-1981, improvements in both maternal and fetal outcome continued to be made at VUH. Due to multiple concurrent changes in the management of these diabetic pregnancies, the precise explanation(s) for these improvements cannot be isolated. Undoubtedly, though, the brighter outcome reflects in large part the frequent assessment of metabolic control, the close personal attention given each woman by the perinatal research nurse, earlier entry into the obstetrical health care system, and the regional referral system.

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The History of Medical Education In Nashville

THOMAS GUV PENNINGTON, M.D.

Although life was precarious for the settlers who arrived in 1780 at "Old Salt Lick" on the Cumberland River under the leadership of James Robertson and John Donelson, it was only five years later that the first school was started. In 1785 the legislature of North Carolina established Davidson Academy on a site in South Nashville near where General Hospital is now located. It operated continuously until 1850, changing its name to Cumberland College in 1805 and finally to the University of Nashville in 1825. In 1850 the University of Nashville closed its doors after two back to back cholera epidemics essentially decimated its student body and three of its four full-time teachers either retired or died.

In spite of this commendable effort in literary education between the years of 1780-1850, there were no medical schools and very few trained physicians. Those who had any significant training received their education for the most part from the University of Pennsylvania. Homeopathy, osteopathy and patent medicine travelers were the order of the day, and there were many downright con men who called themselves steam doctors, faith healers, root doctors, negro doctors, cancer doctors, and doctors by nature, and advertised with abandon by means of posters, newspapers, town criers, and whatever means were available. Favorite remedies included bleeding, blistering, purgation, and leeches. A year after the closing of the University of Nashville, the first medical school opened its doors on the old University of Nashville campus (Fig. 1), calling itself the Medical Department of the University of Nashville. Under the leadership of Doctors W. K. Bowling and John Lindsley, the teaching was carried on entirely by private practicing physicians who were totally responsible for the education, including the curriculum and financing for the students, although the students were charged tuition. This initial building later became the Children's Museum, and is now occupied by the Metropolitan Planning Commission. The curriculum of the school was two years in length, which included five months of lecture each year; during the remainder of the year the student served an apprenticeship under one or more of the various practicing physicians. Anatomy was stressed and probably well taught, and as legally obtaining cadavers was unheard of, grave robbing was the order of the day and was



Figure 1. In 1851, Nashville's first medical school, the Medical Department of the University of Nashville, was started on the old University of Nashville campus. In 1874 it adopted the name of Vanderbilt Medical School.

This is the third and final paper of a symposium on Medical History in Nashville, presented before the Nashville Academy of Medicine, Sept 14, 1982, Nashville.

responsible for considerable disturbance in the community at the time. The second major course was materia medica, which was basically prescription writing; medications used then were quinine (used for any fever), Dover's powders (primarily a mixture of opium and cascara), jalap (a Mexican herb used as a cathartic), and calomel (mercurous chloride). Once or twice a week a surgical demonstration was given in the form of a private practitioner operating on a patient in front of the class. As this was only a demonstration, such a production was strictly hands off from the student's point of view.

The University of Nashville Medical School operated continuously, even during the Civil War, although there is some question that teaching may have been interrupted at one point for a few months. To say that Nashville was less than chaotic would be to understate the case. For the last three of the four war years, Union troops occupied Nashville and disease was prevalent, businesses were disrupted, and uneducated slaves were free to roam the city.

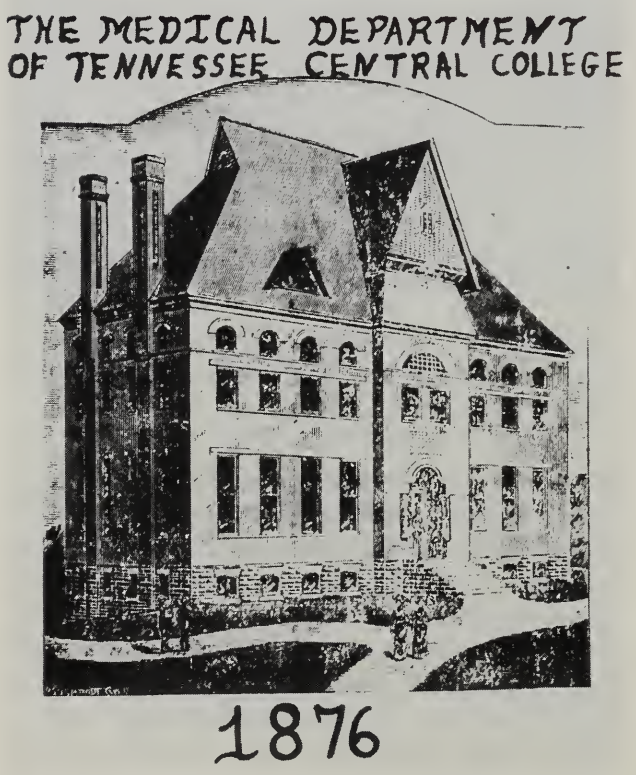


Figure 2. In 1876, the medical department of Central Tennessee College was opened on the campus already in existence in south Nashville.

It was at this point that various religious groups came to the rescue, at least insofar as black education was concerned. The Methodists, Baptists, Quakers, and Congregationalists all started schools in an effort to teach the blacks how to read and write and perhaps carry their education even further when possible. One of these schools, started by the Methodists and called Central College of Tennessee, was housed in an old Confederate gun factory near where Cameron Elementary School is now located at the corner of First and Chestnut Avenues. Insofar as I have been able to determine, no higher education was available to whites, except for the Medical School, until in 1872 the Methodists decided to establish a white literary school, which they named the Central University of Tennessee. Bishop Holland McTyeire was selected to spark the financial drive and was placed in charge of making all of the arrangements. Although he was extremely active in raising funds from Nashvillians during this time, the outstanding gift was from Cornelius Vanderbilt, whom Bishop McTyeire visited in New York and from whom he initially obtained a half million dollars which was subsequently supplemented by his second donation of the same magnitude. With these funds, Bishop McTyeire bought the 75 acres on the west side of town that would eventually become the current Vanderbilt campus. Though several buildings were put up in rapid succession, Vanderbilt still had no medical school.

In 1874 the University of Nashville adopted the name of the Vanderbilt Medical School, "adopting" indicating that no basic changes were made in the location of the University of Nashville Medical School, the same buildings were used, with essentially the same faculty, and financing and the curriculum was still arranged by the practicing physicians who ran the school. By agreement between the University of Nashville Medical School and Vanderbilt University, however, the school agreed to change the diplomas for the graduating students indicating they had graduated from the Vanderbilt Medical School if they so chose. Many students chose this route, others chose to have the University of Nashville Medical School printed on their diploma, and still a third group of enterprising students, by paying an extra fee, chose to have both diplomas printed.

Between 1876 and 1877 two additional medical schools appeared on the scene, Meharry Medical College and the University of Tennessee



Figure 3. Nashville's third medical school, the Nashville Medical College.



Figure 4. In 1895, Vanderbilt split from the University of Nashville and built its own building at Fifth and Elm.



Figure 5. In 1895 the University of Nashville built a new building on Second Avenue.

Medical School. George Hubbard is generally given credit as being the original founder of Meharry. He was born in New Hampshire; he was white, educated in the Northeast, and arrived in Nashville in 1865 as a delegate of the Christian Commission of the Methodist Church attached to the Union Army. After the war, he remained in Nashville and in 1876 graduated from the University of Nashville Medical School. That same year he joined forces with an old friend, W. G. Sneed, a former Confederate Army surgeon, and together with several white physicians, started the medical department of Central Tennessee College on the campus already in existence in South Nashville (Fig 2). Soon the exceptional black students graduating began teaching in the school, probably the outstanding of whom during these years was Dr. R. Robert Boyd.

The third medical school was called Nashville Medical College, started, as were the others, by practicing Nashville physicians. Doctors Duncan Eve and W. F. Glenn were its organizers, and within a year or two they had built their own new building on Broad Street between Sixth and Seventh Avenues; it later became Ansley Hotel, which burned several years ago (Fig. 3).

Needless to say, the competition was quite intense between the medical schools, located as they were on sites within only a few blocks of each other. It was said that derogatory remarks were not uncommonly made even in the classroom concerning the competing schools, and in the fall at matriculation time professors were known to actually board incoming trains carrying students committed to the various medical schools, making efforts to induce them to change their allegiance. All teaching continued to be done primarily by the private practicing physicians during this entire period.

During this era, between the 1880s and 1910, the state of the art was rapidly changing. Although Pasteur had made his early observations in 1857, it was not until the 1880s that Eberth described the typhoid bacillus and related it to the disease. This was soon followed by descriptions of the pneumococcus and gonococcus and recognition of insects as vectors. The spirochete was described in 1904, and in this era the complement fixation test, the Widal test, the Schick test, and many others were developed and put into common use. Needless to say, medical science was now making rapid advances, and it soon became necessary for the medical school to lengthen its curriculum, first to three years and then to four, and chemistry, physiology, bacteriology and pathology were added.

Probably the greatest changes in the teaching and practice of medicine during this era, however, came as the result of the institution of antisepsis. This allowed hospitals to come into existence, for until this point surgical procedures were primarily performed in the patient's home and the very few hospitals that did exist were basically concerned with care of indigents or prisoners. It was during this era that the Nashville General Hospital was constructed in 1890 and St. Thomas around 1900. Numerous infirmaries appeared around the city, and in them most of the surgery for Nashville's population was carried out. Each infirmary carried the name of its central figure, the surgeon, who was surrounded by a supporting staff called "cliques" of supporting physicians. There was Doctor Barr's Infirmary, Doctor Bates' Infirmary, and those of Briggs, Douglas, Eve, McGannon and many more. Each of these infirmaries had from 10 to 40 beds. In addition, various doctors' offices ap-



Figure 6. The back view of the "new" University of Nashville, showing the amphitheater.

peared, outfitted similarly to those in existence today. Most of the offices were in separate buildings located somewhere between Broad Street and Union Street. For instance, on lower Eighth Avenue near where Hume Fogg High School is now located were the offices of Doctors G. C. Savage, O. N. and W. A. Bryan, W. D. Haggard, W. C. Dickson, John Witherspoon, Lucius Burch, and many others. Transportation was supplied primarily by the horse, and most of the physicians of the area chose to use buggies because they were relatively more windproof and rainproof. The majority of the doctors kept their horses during the daytime in a livery stable that was located on Broad Street at a site behind where the First Baptist Church is now located. After the doctor drove his horse and buggy to work, the horse was picked up and taken to the livery stable, and was brought back to the doctor when he was ready to leave in the evening. Doctor Eve kept his horses at his home which was behind where our Doctors' Building is now located on Church Street.

Around 1905-1910 the automobile first appeared, and the doctors of the area seemingly fared quite well. Probably the most noticeable of them all was that of Doctor John Witherspoon, a red Knox; Doctor W. C. Dickson told me a number of years ago that Doctor Witherspoon looked very much like the Prince of Wales, as the back seat in which he rode was elevated above the driver's seat, which was occupied by a black chauffeur named Mansfield Douglas, the grandfather of our current councilman. Doctor Witherspoon was also in close friendship with the presidents of the L & N and NC and St. L. Railroads, and when he took a trip it is said an entire car was devoted to him and his party. The doctor of that time cut a wide swath, always dressed as he was in his cutaway coat and Homburg hat.

It is only fair to state that during this era of rapid advancement in technology and medical science that it was difficult for the private practitioner to carry on his practice and be master of the increasingly complex data he was teaching. It was probably for this reason that in 1895 Vanderbilt ended its long relationship with the University of Nashville and built at Fifth and Elm, its own building (Fig. 4) which is no longer in existence, having been razed in the 30s when U.S. Highway 41, now Lafayette Street, was put through this area. The University of Nashville, separated from Vanderbilt completely, built a new building (Figs. 5 and 6) on Second Avenue almost directly across the street from where Howard High School, now the Metro office building, is now located. This building is still standing. In Fig. 6 you will see the back of the building, which housed the amphitheater. It is an interesting site to visit; one can look through the area where the old classrooms used to be, the amphitheater, the area for loading and unloading patients from horse carts, etc.

The Flexner report, which appeared in 1911, had a profound effect on medical education in general. It was a severe report, pointing out the inadequacies of schools that did not employ full-time teachers. The report was heeded by the medical community, and in that same year the University of Nashville folded, ending its 60 years of medical teaching. The University of Tennessee moved to Memphis, and Meharry, which was described in the report as "probably worth saving," remained, as did Vanderbilt. Because of the report's relatively favorable comments Rockefeller and Carnegie Foundations gave these schools considerable amounts of money.

The remainder of the story is quite familiar, and I will not expand on it at this time. In 1925 Vanderbilt moved into its new facilities on the west campus, where two bright young residents took charge of the housestaff teaching programs: in medicine, Tinsley Harrison, and in surgery, Alfred Blalock, and in 1932, Meharry moved to its present site in north Nashville, contiguous with the Fisk University campus.

Special Item

One Hundred Years of American Medicine

FRANK J. JIRKA, JR., M.D.
PRESIDENT-ELECT
AMERICAN MEDICAL ASSOCIATION

I take great pleasure in bringing you greetings and best wishes for continued success from the AMA to this centennial celebration of the Chattanooga and Hamilton County Medical Society. I say that in all sincerity; this historic occasion merits sincerity. I also say it because of what 100 years—and more—of American medicine can tell us about the county medical society as the grass roots of American medicine and of the federation of organized medicine.

County and state medical societies, especially in the eastern, east central, and southeastern states, were established long before the AMA itself came into existence. Even as late as 1830, when what was then called the Medical Society of the State of Tennessee was established, the AMA was still 17 years away. But in 1846 physicians representing state medical societies attended a National Medical Convention in New York City and voted to establish a national medical association. Representing Tennessee at that meeting was Dr. A. H. Buchanan of Nashville, who was appointed to serve as Vice President of the AMA, which held its founding meeting in Philadelphia in the following year.

The 1847 meeting drew about 250 physicians representing more than 40 medical societies and 26 medical schools from 22 of the 29 states then admitted to the union. Dr. William A. Cheatham, also of Nashville, represented your state medical society at the 1847 meeting. Given the travel conditions that existed in 1846 and 1847, the fact that Drs. Buchanan and Cheatham made it to New York City and Philadelphia was something of an accomplishment in itself, and that 250 physicians braved such conditions indicated just how concerned the profession really was over the serious deficiencies in medical education and practice that existed at the time.

Presented at the centennial celebration of the Chattanooga and Hamilton County Medical Society, Chattanooga, March 22, 1983.

Upon its founding in 1847, the AMA immediately began to address these deficiencies by promoting the art and the science of medicine and the betterment of public health. But little progress was made towards reaching these goals until the late 19th and early 20th centuries. There were three good reasons for this. First, medical science and technology were still in their infancy. Secondly, organized medicine had not yet attained its full stature as a federation, principally because of a wave of Jacksonian democracy during the mid-19th century—a wave that *pro*moted populism and *de*moted professonalism. (I hasten to make due apology to the memory of Tennessee's own Andrew Jackson, "Old Hickory," the seventh President of the United States.)

This attack on professionalism, which began in the 1820s and extended for several decades, led to public demands for the repeal of professional licensing laws and ultimately to the demise of many county and some state medical societies. This, along with minor disagreements such as the Civil War, helps explain why your own county medical society was not established until 1883 and why your state medical society, although not dead, was at least moribund during much of the period. The year 1883, by the way, marked the publication of the first issues of the *Journal of the AMA*, and an editorial published in *JAMA* in 1886 provided an indirect testimonial as to the state of medicine at that time. The editorial advised that the well-rounded medical student should be, among other things, a good manual tradesman and carpenter, a fair blacksmith, and a respectable tailor and shoemaker.

As might be expected, the sad state of 19th century medicine also opened the doors to noisy parades of medical quacks and charlatans. Bold headlines in the advertising columns of newspapers and magazines promised miraculous cures for everything from "female weakness" and "worn-out kidneys" to "paralysis" and "piles." Mean-

while, M.D. degrees could be purchased through the mail from medical diploma mills by anyone willing to pay a few hundred dollars or so, and sometimes less. Many of the medical schools that did exist were of the fly-by-night variety. Reputable physicians and their organizations, such as your county society and state association, however, and the AMA became increasingly concerned, so wiser professional and ultimately political heads began to prevail.

Along about the turn of the century, medical science and technology also were coming into their own, which gave rise to that quotable quote that says it wasn't until about 1900 or so that a random patient visiting a random physician stood better than a 50-50 chance of benefiting from the encounter. Also, just after the turn of the century, after having established much closer ties with county and state medical societies our federation was reorganized. To quote one medical historian: "Finally, in 1901, following the report of a special committee, the present basic structure was established. Membership in the county society carried membership in the state association; the state association, in turn, appointed delegates to the national association."

This federated structure, with lines of authority extending from the local to the state and then to the national levels, was correctly judged to be the only way that the AMA could hope to effectively represent the entire profession, and the immediate results were nothing short of spectacular. There was an immediate rebirth and renewal of county and state medical societies, including your own. Between 1901 and 1908, total membership in all medical societies more than doubled, from 35,000 to more than 70,000 physicians, while AMA membership shot from a meagre 8,400 in 1900 to more than 70,000 by 1910—a jump of 835% in just ten years. That the AMA did derive its newfound strength from the grass roots of the county societies and then of the states, for the first time gave organized medicine and medicine itself a strong and unified national power and presence, and the federation put this new power and presence to good and immediate use in securing long-sought reforms in medical education and practice in America.

In 1908, the AMA—through its Council on Medical Education—prevailed upon the Carnegie Foundation for the Advancement of Teaching to make an independent study of American medical schools. This ultimately resulted in publication of the now-famous Flexner Report of 1910, as well as the subsequent revolution in medical education. By the 1920s, the scores of mail-order diploma mills and fly-by-night medical schools had been shut tight, and the medical schools that remained were graduating well-trained physicians capable of practicing high-quality medicine. By the late 1920s and 1930s, in fact, the quality of American medical education and practice already had become an international benchmark, and it remains so to this day. Our medical schools continue to rank with the very best, our physicians and other health professionals continue to be superbly trained, and our hospitals continue to be among the most modern and well-equipped facilities of their kind to be found anywhere.

So we continue to provide our patients with the best kind of care. All that is what 100 years and more of American medicine have meant to our profession and to our patients and to the American people. Yes, modern medical education and practice have become increasingly complex, and yes, the all but exponential growth of scientific and technological advances has tended to create its own unique problems, especially those related to rising costs. But our federation does and will continue to stand as both generator and guardian of art and science in medicine and of the betterment of public health. Your county medical society, your state medical association, and the AMA do and will continue to stand as first advocates of our patients. Your county society continues to be represented in your state association, and your state association in the AMA, with grass roots strength adding to the strength of all.

Certainly the physicians of Tennessee have added to the strength of the AMA in more ways than one. No less than *seven* of your colleagues have served as President of the AMA. The first was Dr. Paul F. Eve, who served in the 1857-1858 year, and the most recent was Dr. Tom E. Nesbitt, a fellow urologist, who served in 1978-1979. That's what the physicians of the city of Chattanooga, Hamilton County, and Tennessee have brought to American medicine and organized medicine for 100 years and more.

Speaking as the next President of the AMA, and on behalf of all of us now in leadership positions at the AMA, I can think of no finer course to follow than to strive to do as well. I promise you we will so strive.

Chattanooga and Hamilton County Medical Society Celebrates Its Centennial

On March 22, 1983, the Chattanooga and Hamilton County Medical Society became the 44th local society in the United States to have seen 100 years of service to the profession and its community. The celebration reached its climax at a gala banquet held the following evening at the Chattanooga Choo-Choo Hilton's superb convention center. It was the culmination of months of preparation by a committee headed by Robert Meyers, M.D., immediate past president of the Society. After dinner, a huge anniversary cake surmounted by a large figure 100 was wheeled in.

The featured event of the celebration was an address by Frank J. Jirka, Jr., M.D., president-elect of the American Medical Association. (The address is printed elsewhere in this issue.) Dr. Jirka, a double amputee who suffered the loss of both legs below the knee in activities as a Navy frogman during World War II, had spent the morning touring the local Siskin Rehabilitation Center, spreading the message of "positive thinking" to patients and executives following him on his rounds. Following his address, Dr. Jirka was presented a certificate of appreciation by J. Edwin Strickland, Jr., M.D., president of the Society, who also displayed an "Outstanding Achievement Award" presented the organization by Governor Lamar Alexander. Letters of congratulation were also sent by Senators Howard Baker and Jim Sasser and Congresswoman Marilyn Bouquard.

Following dinner and the featured addresses, copies of the book by Dr. James Livingood, Emeritus Professor of History at University of Tennessee-Chattanooga, entitled *Centennial History of the Chattanooga and Hamilton County Medical Society*, were distributed to the more than 400 invited guests assembled for the celebration.













1) Chattanooga and Hamilton County Medical Society celebrates its 100th anniversary. 2) Dr. J. Edwin Strickland, president of the Chattanooga and Hamilton County Medical Society. 3) Dr. Robert Myers, past president of the Society and chairman of the Centennial Committee. 4) Dr. Strickland presents a plaque to Dr. Frank J. Jirka, Jr., president-elect of the American Medical Association. 5) Participating in the centennial celebration of the Society are (from left) Dr. Frank J. Jirka, Jr.; Dr. William Sheridan, past president of the Society; Dr. Joseph Johnson, veteran member of the Society; and Dr. Gene Kistler, past president of the Society. 6) Mrs. Florence Richardson, executive director of the Society, and Mrs. David Turner enjoy a chat at the reception preceding the banquet. 7) Among those seated at the head table at the celebration are Dr. and Mrs. Frank J. Jirka, Jr.; Dr. David Turner, delegate to the AMA and Mrs. Turner; and Dr. George W. Holcomb, Jr., president of the Tennessee Medical Association.





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Pseudogout

CHARLES E. KOSSMANN, M.D., Editor

WILLIAM J. SCHULTE, M.D.
(*Resident Physician*)

A 60-year-old white man was admitted to the Veterans Administration Medical Center with pain in the left knee for two days following a week of pain in the left hip radiating by sciatic distribution to the left thigh and ankle. It was increased by sitting and decreased by recumbency. Aspirin afforded some relief of the painful swelling and warmth of the left knee.

An episode of similar complaints occurred two years earlier which subsided with rest in bed. There was a past history of degenerative joint disease. A right ocular cataract had been removed in the past.

Admission temperature was 98°F, pulse 76 beats per minute, blood pressure 122/74 mm Hg without change on tilting, and respirations 16/min. The right pupil was triangular in shape. There was a grade II/VI systolic murmur at the cardiac apex. The left knee was erythematous and warm with an obvious intra-articular effusion of moderate degree.

A roentgenogram of the left hip disclosed femoral artery calcification, and one of the left knee a suprapatellar and infrapatellar collection of fluid without chondrocalcinosis. The serum creatinine was 0.9, uric acid was 5.8, phosphorus 3.3, and calcium 9.3 mg/dl. The alkaline phosphatase was 99 IU/liter. The white blood cell count was 9,700/cu mm with a normal differential count. The hematocrit was 46%, and the ESR 44 mm/hr.

Arthrocentesis yielded clear, straw-colored fluid; culture and Gram stain were negative. Glucose in the joint fluid was 81 mg/dl, protein 2.5 gm/dl, white cell count 800/cu mm of which 40% were segmented neutrophils and 60% lymphocytes. Polarized light microscopy disclosed birefringent rhomboid crystals in the polymorphonuclear leukocytes.

Treatment with indomethacin resulted in prompt resolution of pain.

The final diagnosis was pseudogout.

ALEXANDER S. TOWNES, M.D.
(*Professor of Medicine-Rheumatology*)

There are some features of this case of pseudogout that were atypical. The patient was a relatively young person (60 years old); roentgenograms did not show chondrocalcinosis in spite of the crystals in the synovial fluid; the white cell count on the joint fluid (800/cu mm) and the protein content were rather low for an inflammatory exudate. In general, if crystals are found intracellularly, the white cell count is higher. The accuracy of the cell count then comes into question, since the knee was also clinically warm and even erythematous. The possibility that the fluid clotted en route to the laboratory with consequent loss of cells and protein before these tests were done is one possible explanation for this apparent discrepancy.

The deposition of calcium pyrophosphate dihydrate crystals in joints labeled by McCarty and others[1] as "pseudogout" is a relatively recent addition to the rheumatologic literature, appearing in the 1960s when the association of these crystals with joint disease was first recognized. As more cases have been studied we have come to understand the disease better.

There are three basic forms of this disorder: hereditary, idiopathic, and in association with metabolic or other disease states. This syndrome was first described in a Czechoslovakian family[2] in which chondrocalcinosis was found with an autosomal dominant pattern of inheritance. Since then other cases with a hereditary predisposition have been reported in Brazil, Chile, the United States and other countries around the world. There are some differences in the clinical manifestations of the disease in various genetic groups. Chondrocalcinosis generally develops in the hereditary syndrome at a younger age than in the usual elderly person with the idiopathic disorder, and this may be a clue to suspect genetic or metabolic predisposition. Episodic attacks of acute arthritis may be widely spaced. In some, involvement of the spine is rather prominent.

There are several diseases associated with calcium pyrophosphate deposition, including osteoarthritis and other forms of arthritis. There are also a number of metabolic diseases that show calcium pyrophosphate deposition in cartilage.

From the Department of Medicine, University of Tennessee, 951 Court Ave., Memphis, TN 38163.

Presented Aug. 25, 1982.

Table 1 is a partial list of such disorders. Gout can display pyrophosphate crystal deposition in addition to urate crystal deposits so that gout and pseudogout can coexist, although this combination is relatively uncommon in our experience in Memphis. Hemochromatosis or hemosiderosis are important associations, since patients may first be seen by the physician with this arthritic syndrome. The relationship of the deposit of calcium pyrophosphate to the deposit of iron is not clear. Iron does inhibit a number of the pyrophosphatase enzymes that are present in various tissues. It has also been suggested that the iron may provide a nidus for crystallization or that it may cause release of superoxide radical.

Less commonly associated with pseudogout, perhaps, is hyperparathyroidism. Other disorders that may predispose to pseudogout are those with an abnormality of magnesium or calcium metabolism or with the pyrophosphatase enzymes. There is an important association with osteoarthritis that will be discussed in more detail below.

There are some other non-metabolic associations. Neurogenic arthropathy may display chondrocalcinosis and perhaps the pseudogout syndrome. Simple aging is a definite factor, with a high incidence after age 75 years. Postmortem studies on residents of homes for the aged have shown an incidence of chondrocalcinosis ranging as high, in one series, as 27% of all people past the midpoint of the eighth decade of life. Perhaps certain unknown metabolic changes in cartilage with age predispose to the deposit of calcium pyrophosphate crystals. Ochronosis and the diffuse intervertebral hyperostosis (DISH) syndrome, in which there is excessive bony proliferation, may show pyrophosphate deposits.

Clinical Features

In the majority of cases of calcium pyrophosphate dihydrate (CPPD) deposit disease the syndrome is idiopathic, without underlying disease or hereditary pattern. This disease usually occurs in middle or advanced age. The overall male to female incidence is 1.5 to 1.0. The joints most commonly affected are the knee and the wrist, but arthritis may involve the hips, elbows, shoulders, ankles, metacarpals, spine, and occasionally other joints. The arthritis is commonly monoarticular, but like other crystal-induced arthritides, when one joint flares there is a tendency for exacerbation in other joints to generate a limited polyarticular syndrome.

TABLE 1

DISORDERS ASSOCIATED WITH CALCIUM PYROPHOSPHATE DIHYDRATE DEPOSIT DISEASE

Gout
Hemochromatosis—Hemosiderosis
Hyperparathyroidism
Hypomagnesemia
Hypophosphatasia
Hypothyroidism
Osteoarthritis
Neurogenic arthropathy
Ochronosis
Diffuse intervertebral skeletal hyperostosis
Aging

McCarty[3] has described these various patterns of clinical presentation (Table 2). Patients commonly have acute arthritis or the pseudogout syndrome followed by symptom-free intervals. Something in the range of a quarter of all patients will fit this pattern. The patient we heard about today would probably fall into this group. A small number of patients have polyarthritis and a rheumatoid-like picture. A possible confusing feature of this pattern is that in association with increasing age or from unrelated intercurrent disease a positive test for rheumatoid factor may develop leading to a mistaken diagnosis of rheumatoid arthritis. This is uncommon but something to be kept in mind in the patient with atypical rheumatoid arthritis. The majority of patients have an osteoarthritis-like disease about half of which may display superimposed flares of acute joint disease. A significant degree of inflammation in the patient with osteoarthritis should raise the suspicion of superimposed crystal deposition.

There is another calcium crystal in addition to calcium pyrophosphate that may be associated with osteoarthritis-like disease, namely, hydroxyapatite. In a recent study in patients with os-

TABLE 2

CLINICAL PATTERNS AND APPROXIMATE FREQUENCIES OF CPPD DEPOSIT DISEASE*

A.	Pseudogout syndrome (25%)
B.	"Pseudorheumatoid arthritis" (5%)
C. & D.	"Pseudoosteoarthritis" (50%) (with superimposed acute attacks in half)
E.	Asymptomatic chondrocalcinosis
F.	"Pseudoneuropathic joints"

*From McCarty.[3]

teoarthritis and knee effusion, a relatively high percentage have had either pyrophosphate or hydroxyapatite crystals identified in the synovial fluid.[4] It should be noted that hydroxyapatite crystals are not identified on routine polarized light microscopy and require special methods for identification.[4]

Patients with CPPD deposit disease may be identified on routine roentgenogram as asymptomatic chondrocalcinosis. There is also a variant simulating a neuropathic-like arthritis with severe destruction and loss of bone but without the neurologic disease to account for it. In contrast to the usual neuropathic arthropathy these patients may demonstrate an inflammatory component. We saw one patient like this recently who had been incorrectly diagnosed as tuberculous arthritis of the elbow. He had a normal neurologic examination, yet had extensively destructive arthritis of the elbow which subsequently proved to be calcium pyrophosphate crystalline deposit disease.

Diagnosis

Finding the crystals confirms the diagnosis. A typical example is shown in Fig. 1, which shows an unstained wet preparation of synovial fluid with polarized light microscopy. Many crystals have a characteristic rhomboid shape, but they vary both in size and shape. There are frequently multiple crystals within a single leukocyte. In contrast to urate crystals, which are long and needle-like, often as large as the white cell, pyrophosphate crystals tend to be much smaller. Rarely, one can find pyrophosphate crystals within leukocytes on a Gram stained smear of synovial fluid. Fig. 2 shows such an example, which again illustrates the relatively small size as compared to the well-stained nucleus of this polymorphonuclear leukocyte.

Identification of the characteristic pyrophosphate crystals in the synovial fluid is an essential element of the diagnosis. Unless the microscopist has seen these crystals before, they are often missed, since they are smaller than urate crystals and don't really stand out strongly in polarized light, so that it is necessary to use high power or even an oil-immersion lens to see some of the smaller ones. Changing focus is necessary because they may be located at different levels within the white cells. Routine laboratories often do not report finding these crystals and we usually rely upon our own demonstration and identification of crystals in the rheumatology laboratory or the Department of Medicine housestaff laboratories in the VAMC and City of Memphis hospital.

The importance of identification of the crystal is pointed out in the case presented and in others in whom chondrocalcinosis may not be demonstrated by x-ray. An example of chondrocalcinosis in the fibrocartilage of the knee is shown in

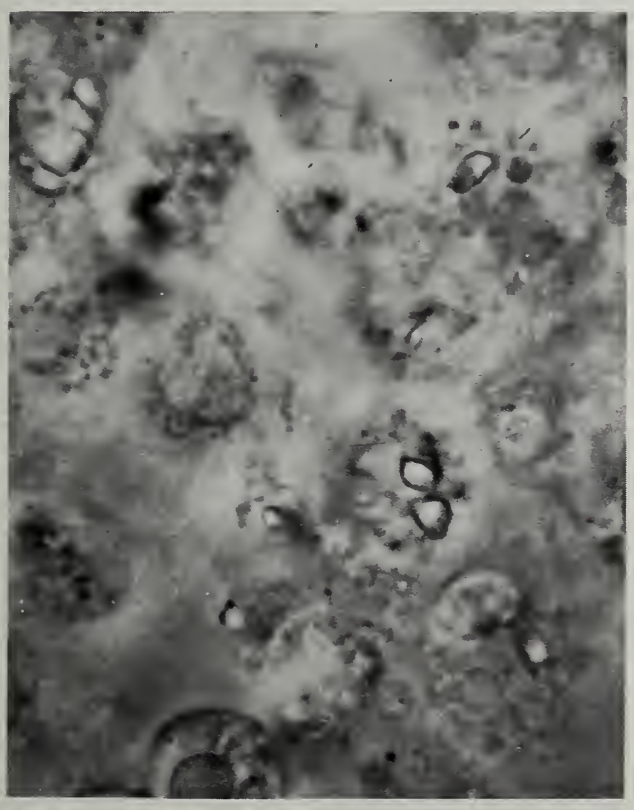


Figure 1. Wet preparation of synovial fluid viewed with polarized light microscopy demonstrating numerous CPPD crystals phagocytized by leukocytes.



Figure 2. Stained film of synovial fluid showing a CPPD crystal within a polymorphonuclear leukocyte.

Fig. 3. The most likely cartilages to be involved are the volar carpal plate of the wrist and the menisci of the knee joint. Typical stippled calcification may be present. Sometimes these calcifications are widespread, including the symphysis pubis.

There are a number of possible reasons for the failure to demonstrate chondrocalcinosis on x-ray. There is one case report[5] in which chondrocalcinosis was identified before an attack of pseudogout developed. After the attack, the x-ray was negative, which may suggest a shedding of these crystals into the joint space and dislodgement from the cartilage. A more likely explanation of the failure to demonstrate chondrocalcinosis is that either the density of the deposit is not sufficient to show up on a roentgenogram or the x-ray film used is not appropriate. A discussion of this problem and outline of the most effective x-ray technique for demonstrating chondrocalcinosis when present is given in reference 6. Use of a nonscreen industrial-type film for hands and feet with magnified views of larger joints and the axial skeleton is recommended.

Sites of Deposition; Pathogenesis

The sites of deposition of calcium pyrophosphate are the synovium, within the cartilage matrix, or within clefts of osteoarthritic cartilage. Within the cartilage matrix they tend to cluster around the lacunae of chondrocytes. There may be deposits very close to the surface, or as we have already said, in the meniscus rather than in the hyaline cartilage of the joint. One of the mechanisms that has been proposed for the development of the acute attack is crystal-shedding into the joint. Some type of trauma or surgical procedure often precedes the onset of an acute attack, although the same can be said for acute gout. One of the hypotheses suggests that with a surgical procedure, stress, or trauma there may be a transient fall of serum calcium and that this may influence crystal formation or the size of crystals in deposits so that they may be small enough to shed into the joint and cause symptoms. We do know that in gout, a rise and fall in plasma urate is associated with precipitation of an acute attack; perhaps a similar mechanism involving plasma calcium is related to the precipitation of acute pseudogout. Other postulated mechanisms are that the crystal deposits may be shed into the joint as a result of microfracture or the degradation of cartilage by the osteoarthritic process, or by enzymatic digestion of the cartilage surface.



Figure 3. Roentgenogram of a knee joint from a patient with CPPD deposit disease illustrating chondrocalcinosis in the menisci.

Whatever the mechanism, once the crystals have shed into the joint space they have phlogistic properties. Experimentally, calcium pyrophosphate crystals introduced into the joint of an animal or even a human subject induce an acute inflammatory response. The crystals must be of microscopic size in order to produce an inflammatory reaction. It is thought that surface properties of the crystal attract synovial fluid proteins, including immunoglobulin, which interact with receptors in the phagocytic cells of the synovial membrane and in polymorphonuclear leukocytes. This stimulates the release of chemotactic factor highly specific for polymorphonuclear leukocytes, which continue to migrate into the joint. The actual phagocytosis of the crystals by leukocytes results in a series of reactions within the cells that result in an increased respiratory burst, a move of lysosomal enzymes to the phagocytic vacuole, and further release of enzymes and chemotactic factor into the medium. Complement and other mediators, including kinins, may also be involved in this inflammatory reaction.

Clinically the degree of inflammation may vary in different patients. In general, in pseudogout it is somewhat less intense than in gout, but there are obvious exceptions. We have encountered occasional patients with fever and an extraordinarily intense inflammatory process that was mis-

taken for cellulitis or septic arthritis, particularly with wrist involvement. Finding the crystal is of key importance in the diagnosis.

Rarely does the crystalline-induced arthritis coexist with an infectious process. Since synovial fluid leukocytosis (even above 50,000/cu mm) may occur in both disorders, organisms should be sought in the joint fluid even when crystals are demonstrated. In crystalline-induced arthritis the glucose in the joint fluid is not reduced, whereas it is usually strikingly low in septic arthritis. This then is another laboratory test important in the differential diagnosis.

Relation to Other Arthritides

The relationship of this CPPD deposit disease to osteoarthritis and other forms of arthritis is of importance. Osteoarthritic patients who have crystals seem to have a more severe arthritis and are more likely to come to the attention of the physician. Further, they are more likely to have roentgenographic evidence of osteoarthritis and more likely to have an effusion with an elevated white cell count than the average patient with osteoarthritis. In osteoarthritis, crystalline deposits may not occur in characteristic locations in the menisci, but may be found in other areas in and around the joint, including the tendons and ligaments, or in the synovium itself. The metabolism of pyrophosphate is not well enough understood at this time to know how it relates to the development of osteoarthritis. It is clear that chondrocytes make pyrophosphate and that probably other connective tissue cells do so as well. Some type of enzymatic or metabolic aberration in these cells could result in the deposit of pyrophosphate crystals. When abnormalities of the specific enzymes have been looked for they have not been found, although for the most part investigators so far have looked at the joint fluid and not the tissue. Local abnormalities in cartilage or connective tissue metabolism that involve pyrophosphatases responsible for the breakdown in the pyrophosphate to allow its conversion to other calcium salts are thus suspected as an etiologic mechanism of pyrophosphate crystalline deposition, but the exact mechanism has not been shown.

Treatment of the acute attack of pseudogout is very successful with nonsteroidal anti-inflammatory drugs, as demonstrated in this patient. An alternative is aspiration and local injection of corticosteroid.

Acknowledgments:

The figures in this report also appear in Townes AS: Crystal-induced arthritis, chapter 66, in Barker LR, Burton JR, Zieve PD (eds): *Principles of Ambulatory Medicine*, and are reprinted with the permission of the publisher, Williams and Wilkins, Baltimore, 1982.

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Since only a small fraction of the insurance premium actually insures against malpractice, the term malpractice insurance is inappropriate, misleading, and inaccurate. Most of the premium expenditure is for insurance against attorneys and should be recognized as "attorney insurance." This itself should help the public to be aware of the true situation. In addition, the physician should not be rendered helpless in any malpractice action since meritless malpractice litigation is not a victimless crime. Even when a physician wins a suit, all he has accomplished is a successful defense. He is still "out" a great deal of time, effort, and anguish. The physician is a person also! Even as the plaintiff patient may have his day in court, the physician defendant should have judicial recourse in counteraction that will discourage avaricious attorneys from the indiscriminate filing of capricious suits.

Allen Silbergleit, M.D., Ph.D.
Oakland County Medical Society Bulletin (10-81)

EKG of the Month

W. BARTON CAMPBELL, M.D.

Case 1. An 80-year-old retired farmer was admitted to St. Thomas Hospital for an inguinal hernia repair. Although he had a history of hypertension, his cardiovascular examination at the time of admission was within normal limits. An electrocardiogram was obtained (Fig. 1).

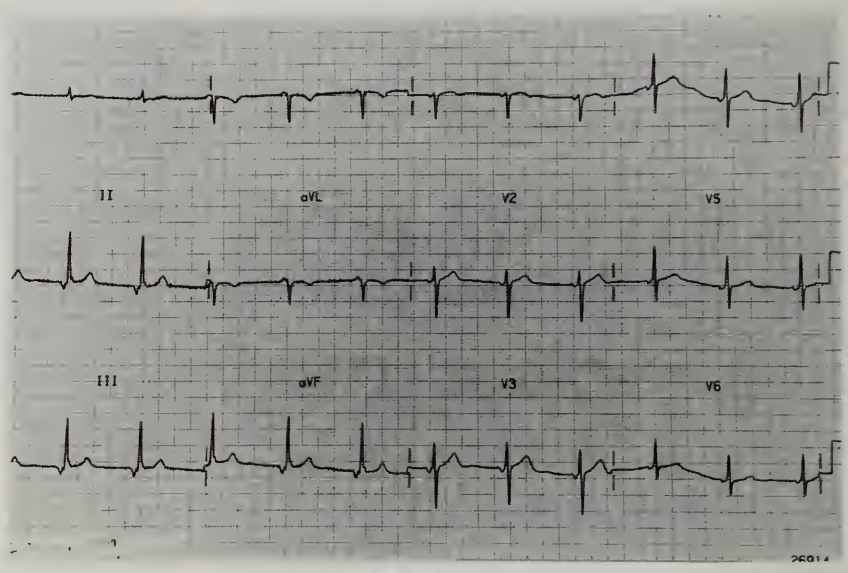


Figure 1

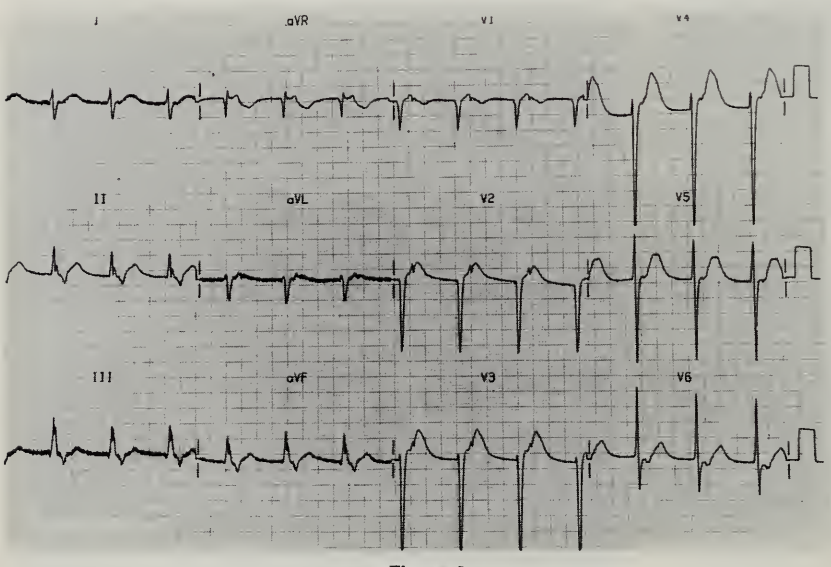


Figure 2

Case 2. A 70-year-old retired metal worker was admitted for evaluation of exertional chest tightness radiating to the left arm. Cardiac catheterization disclosed stenosis of moderate degree in the circumflex coronary artery. An electrocardiogram was obtained (Fig. 2).

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

Discussion

What do the two electrocardiograms have in common? Fig. 1 shows an electrocardiogram with a regular rhythm and a rate of 64/min. QRS complexes are normal, and there is no repolarization abnormality. Inverted P waves with a very short PR interval (0.08 seconds) are best seen in leads II, III and aVF. These inverted P waves should not be mistaken for Q waves. Inverted P waves in the inferior leads result from an atrial depolarization moving from the floor to the top of the atria in a superior or cephalad direction. The atria normally depolarize from the sinus node (located at the junction of the superior vena cava and the right atrium) caudally toward the floor of the atria, producing an upright deflection in leads II, III and aVF. In this electrocardiogram the short PR interval with superiorly oriented P waves is diagnostic of atrioventricular (AV) junctional rhythm. The AV junction is usually defined as that part of the specialized conduction system beginning at the lower right atrium in the region of the AV node to the division of the His bundle. A PR interval of less than 0.11 seconds is usually present when the electrical impulse begins in the junctional area.

P waves may precede, follow, or be hidden in the QRS complex. It was once believed that when the P wave precedes the QRS complex the area of impulse formation was closer to the atria than the ventricles. This would explain a shorter retrograde conduction time with atrial capture (and ensuent P waves) appearing prior to ventricular capture. Microelectrode studies have recently shown, however, that there is no correlation between the anatomic region of junctional pacemaker site and the location of the P wave.

Fig. 2 shows AV junctional rhythm with inverted P waves following the QRS complex. This tracing also shows mild right axis deviation and slight prolongation of the QRS complex. These

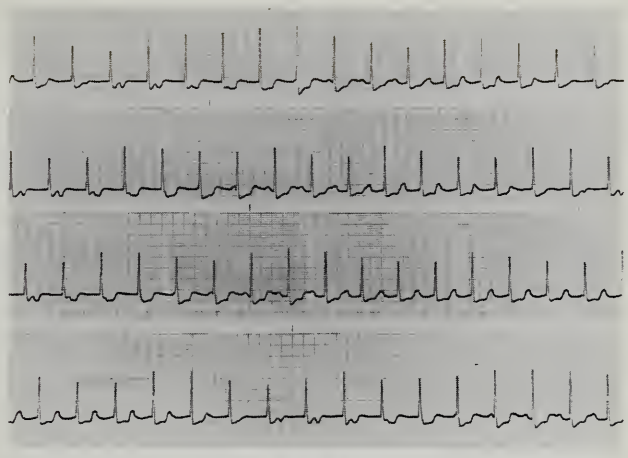


Figure 3

two tracings demonstrate a fixed relationship between QRS complexes and retrograde P waves. P waves and normal QRS complexes may also be dissociated with one another as shown in this rhythm strip (Fig. 3).[1] Dissociation implies antegrade and retrograde AV block.

The "physiologic rate" of impulse formation in the AV junction is rarely more than 70/min. The term "junctional tachycardia" may be used for rates in excess of 70/min.[2]

AV junctional rhythms are seen in a wide variety of clinical situations. They are a common dysrhythmia with digitalis intoxication and are often seen in the presence of impaired ventricular contractility. These two patients had no hemodynamic abnormalities. No therapy was given for these arrhythmias and in both patients the arrhythmias terminated spontaneously.

CONCLUSION: AV junctional rhythm with retrograde atrial depolarization.



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CAT Scan of the Month

STEPHEN L. GAMMILL, M.D. and MICHAEL ALABASTER, M.D.

A 54-year-old white woman had a carcinoma of the colon resected in 1978, requiring a colostomy that was closed a year later. She developed back pain in February 1982, which a complete workup failed to elucidate. In November 1982, a lumbar disc was removed but the pain persisted. At exploratory celiotomy in January 1983, recurrent tumor was found in her pelvis for which a rhizotomy was done and an epidural catheter was installed to relieve pain.

An excretory urogram showed hydronephrosis of the left kidney and a large retroperitoneal mass on the left. Figs. 1 and 2 are representative cuts from computerized axial tomography of the abdomen, performed to further elucidate this mass. Please examine them and see if you can arrive at the correct diagnosis. The cuts were made at the first and second lumbar vertebral bodies following the intravenous administration of contrast material.

Discussion

In both figures, the top of the right kidney, which is normal, may be seen adjacent to the vertebral body. A part of the left renal collecting system is surrounded by a relatively radiolucent mass with some extravasation of contrast material around the collecting system and into the mass. The relatively radiolucent mass was apparently urine, and that some contrast material extravasated from the renal collecting system allowed a diagnosis of urinoma to be made.

The left renal collecting system was punctured with a needle and contrast material injected. The left ureter was obstructed in the pelvis, almost certainly because of invasion by the recurrent tumor. A percutaneous nephrostomy tube was inserted into the renal collecting system. Following two weeks of drainage through the nephrostomy tube, the urinoma was considerably smaller. The nephrostomy tube was replaced with an indwelling ureteral stent and the patient was discharged. The cancer was to be treated on an outpatient basis.

From the Departments of Radiology and Urology, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146.

Follow-up computerized axial tomography two weeks later showed remarkable reduction in the urinoma. The urinoma apparently formed because the ureter became obstructed by the tumor, retrograde pressure causing the collecting system to leak.

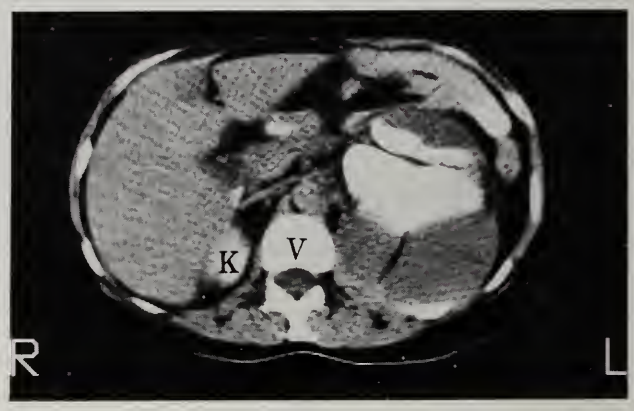


Figure 1. The superior margin of the right kidney may be seen (K) to the right of the L1 vertebral body (V). Note the large radiolucent mass surrounding and displacing the left kidney. Also, note the contrast material extravasated into the mass.

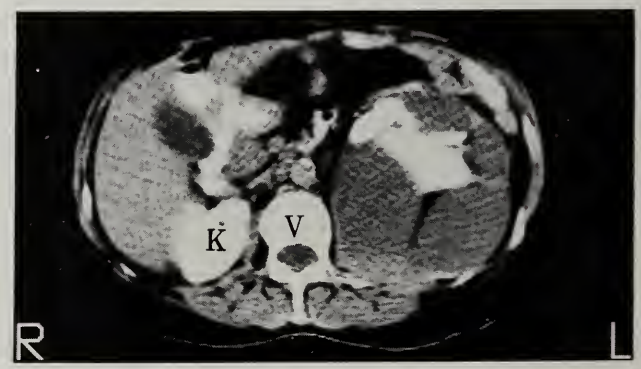


Figure 2. This cut was taken 2 cm inferior to Fig. 1 and displaces the mass containing extravasated material. It actually surrounds the kidney.

FINAL DIAGNOSIS: Urinoma secondary to ureteral obstruction from invasion by tumor.

Indigenous Measles Eliminated in Tennessee

DAVID RIDINGS

In the years 1977-1982, a dramatic decrease in the number of reported cases of measles has occurred in Tennessee and in the United States in general. A disease that once struck nearly every American has been reduced in incidence by more than 99% from the prevaccine era to now.

These decreases have followed the implementation of two federal-state-local programs spearheaded by the Center for Disease Control. The first of these was the National Childhood Immunization Initiative, begun in the spring of 1977. The other program, the Measles Elimination Program, started in the fall of 1978.

The National Childhood Immunization Initiative had two goals: (1) ensuring that at least 90% of the country's children had received necessary vaccines, and (2) developing a permanent system to maintain this level of protection. A concentrated effort was made to identify schoolchildren who were not properly immunized. Records were examined, and children unable to show some evidence of immunity or those not in compliance with state and local regulations were either vaccinated at school or referred to outside medical providers for vaccination. To ensure that a high percentage of the school age population would continue to be protected by vaccination, legal requirements were established (where possible) and enforced as a condition of entering or attending school.

The Tennessee General Assembly passed two amendments, effective July 1, 1978, to the Tennessee immunization law which was originally passed in 1967. These amendments specified that no children shall be permitted to attend school or day care programs until proof of immunization against certain diseases is given to a school official, and that each child attending any school without furnishing proof of immunization (or a religious/medical justification for noncompliance) shall not be counted in the average daily attendance of students for the distribution of State school funds. These certain diseases are diphtheria, measles, poliomyelitis, tetanus, whooping cough, and rubella.

The Measles Elimination Program had as its single goal the elimination of indigenous measles from this nation by October 1982. Indigenous measles includes ongoing measles transmission within the United States; it does not include imported measles cases and those cases resulting from these importations that might occur in the succeeding two generations. The main components of this strategic program to eradicate measles include achieving and maintaining high immunization levels, active surveillance, and aggressive outbreak control.

Within the Tennessee Department of Public Health, these efforts have been coordinated by the immunization program of the Communicable Disease Control Section. Staff of the program

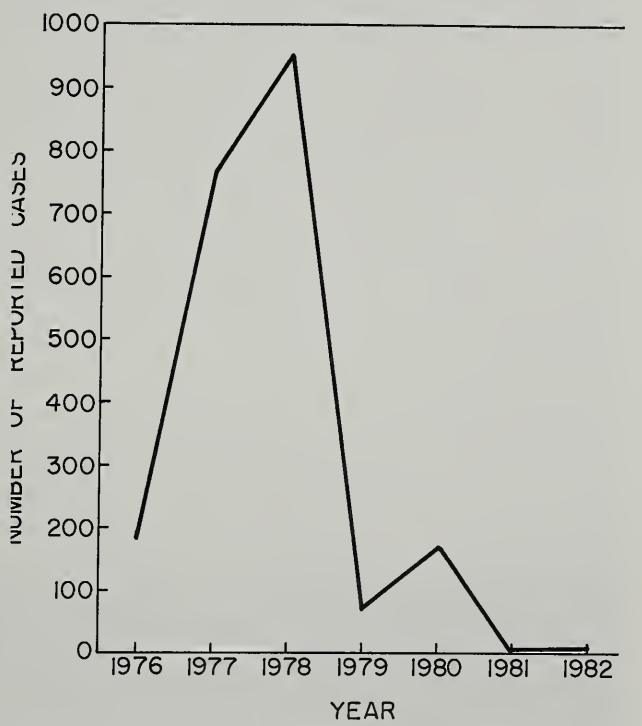


Figure 1. Number of reported cases of measles in Tennessee, 1976-1982.

From the Division of Health Statistics, Tennessee Department of Public Health, Nashville.

TABLE 1

REPORTED CASES OF MEASLES BY AGE GROUP IN TENNESSEE 1976-1982

Age Group in Years	1976	1977	1978	1979	1980	1981	1982
TOTAL	187	769	952	69	170	2	6
<5	22	120	226	13	32	2	4
5-9	27	120	136	10	32	—	—
10-14	98	242	298	10	47	—	—
15-19	35	227	248	20	45	—	—
>20	5	60	44	16	14	—	2

have worked in close cooperation with the morbidity data collection unit of the Division of Health Statistics, which notifies immunization personnel of any reported cases of measles or possible measles (those with rash).

In addition to the realization of the two goals of the National Childhood Immunization Initiative for Tennessee's school age children, immunization program personnel have concentrated other efforts in trying to reach the preschool age group. Parent education programs have been initiated in many hospitals across the state. Parents of newborns are urged to immunize their children at the earliest possible age against not only measles but also against other infectious and vaccine-preventable childhood diseases. Parents of children in day care centers are asked to vaccinate their children as required, since the occurrence of measles (or any other contagious childhood disease) in this type of environment can cause a severe outbreak. Most local health departments have implemented a system that aids in the identification of vaccine-delinquent children so that they can be followed to assure receipt of needed vaccines.

Fig. 1 and Table 1 illustrate the success of these disease prevention programs. All cases in 1982 were imported or resulted from importations. Three of the four cases in 1982 occurred in children too young for routine measles vaccination. The other, a 4-year-old, had received measles vaccine and may not have had measles; the doctor refused to take a serology for testing. According to new national criteria that became effective January 1, 1983, this child now would not have been considered a confirmed case. All cases in 1981 were imported or related. Thus, no indigenous measles cases have been reported in Tennessee since 1980.

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A unique prescription product for the relief of acute pain and accompanying anxiety and tension.

MAXIGESIC capsules provide excellent relief of acute pain with predictable patient response. Potent, but without aspirin complications. Each capsule contains the analgesics Codeine 32mg and Acetaminophen 325mg plus 6.25mg of Promethazine to help relieve the anxiety and tension often accompanying pain. MAXIGESIC C-III status permits telephoned prescriptions and authorizes refills up to 5 times in 6 months (unless restricted by state law).

CONTRAINDICATIONS: Hypersensitivity to Codeine-containing preparations, the potential for abuse and dependence may occur. Administration is not recommended over an extended period. In ambulatory patients, Codeine may impair mental and/or physical abilities.

Interaction with other CNS depressants (anesthetics, tranquilizers, sedatives) may exhibit additive CNS depression.

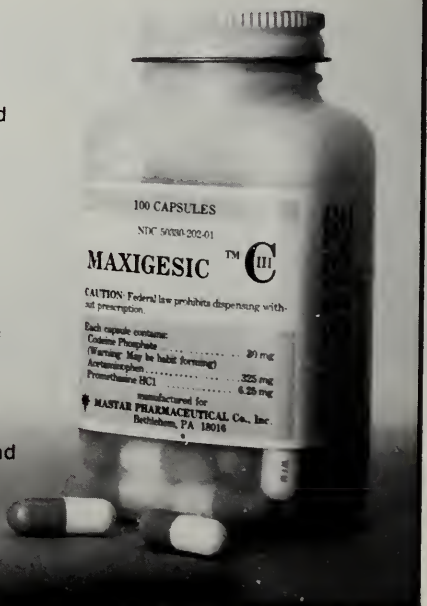
Usage in Pregnancy: Safe use has not been established in pregnant women.

Pediatric Use: Should not be administered to children under 12.

PRECAUTIONS: Increased cranial pressure may occur in presence of head injury. Promethazine should be administered cautiously to patients with cardio-vascular or liver disease. Acute abdominal conditions may be obscured. The drug should be given with caution to the elderly or debilitated, and those with severe impairment of hepatic and renal function, hyperthyroidism, Addison's disease and protatic hypertrophy or urethral stricture.

ADVERSE REACTIONS: The most frequently observed reactions include dizziness, lightheadedness, sedation nausea, vomiting and constipation.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted to severity of pain, and the response of the patient. The usual dose is in one or two capsules every 4 to 6 hours as required.



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president's page



NAT E. HYDER, JR.

Your Fair Share

I hope every member of the Tennessee Medical Association is aware that we have a program to aid physicians who have impairments resulting from abuse of alcohol and drugs. The program is highly respected and is even being used as a model for other associations. I hope you are aware also that the Association is firmly committed to the program's continued support as it grows and develops.

The latest evidence of this support came from the House of Delegates in April. A dues increase of $15 beginning in 1984 was approved unanimously by the House to fund the Impaired Physician program. Much of the earmarked funds will be used to secure the services of a part-time medical director. The need for such a person is well documented. Since the program began in 1979, a handful of physicians have not only overseen the program, but also have given innumerable volunteer hours to make the program operational and successful. At present, the program has returned more than 40 physicians to a productive medical practice. Since the rehabilitation and follow-up phase of the program ideally encompasses up to two years, it has become increasingly difficult for volunteers to accomplish the program's objectives and still earn their own livelihood. Both the Board of Trustees and the House of Delegates agree that we can lean no harder on this small core of physicians.

Although word of our program is spreading, according to national averages there are more than 500 physicians in the state who will fall victim to alcohol and drug abuse during their practice lifetime. To date, we have been able to successfully identify and verify only about 80 of them, over half of whom have been identified by their physician colleagues. This is both surprising and pleasing. It reassures us that we are headed in the right direction and that we are assuming the role of being "our brother's keeper."

Another vital link in this important program is the development of a loan fund for the financially distressed impaired physician. The Association has made initial contributions to this fund, but the start-up funds have been lent and further volunteer contributions are desperately needed. You will be solicited and given the opportunity to contribute to this fund in the very near future. Your contribution will be tax deductible and very much appreciated.

As you can see, there are those who are already giving "their fair share," and more. You, too, can have part in the program. You can help to educate your fellow physicians by simply informing them of it by word of mouth. You can help identify the rest of those 500 diseased physicians who are in need of treatment. Finally, if you can't give of your time, you can at least support the effort through a contribution to the loan fund.

N E Hyder Jr MD

journal of the
tennessee
medical association

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JULY, 1983

editorials

A 76th Year Prospectus

Seventy-five years ago last month, after a gestation period of several years, and with protracted and severe dystocia, the *Journal of the Tennessee Medical Association* was finally born. Details of the labor and delivery are found elsewhere in this issue in a brief history of the *Journal* written by its previous editor, Rudolph Kampmeier, M.D., who guided it through a considerable part of its adolescence, and possibly adulthood. The reason I say "possibly" is that I am not certain of its present stage. It seems to me to be in the full flower of its prime, but then I could be biased. There are those who maintain there are far too many medical journals around—there unquestionably are—and would solve the problem by doing away with state medical journals, a suggestion at best ridiculous, since the forty-odd state journals now surviving are a minor—*very* minor—fraction of the hundreds of still proliferating medical periodicals in print. Still, any publication must be continually reassessing its situation.

Why, then, a state medical journal for Tennessee? The reasons it was started are given in the "Salutatory," written by the editor of its first issue, George H. Price, M.D., which we reprinted along with Dr. Kampmeier's article. As Dr. Kampmeier points out, many of the necessities that prompted this journal's birth are less urgent now, educational needs being satisfied from a multitude of sources. There is one function, though, that the *Journal* still serves, as it always has—that of providing communication between local societies, and between those societies and the state association.

Something over ten years ago the well of pharmaceutical advertising money began drying up, as "throw-aways" proliferated and the pharmaceutical houses turned increasingly to them and to other avenues than journals to tout their products. Although a few stuck by the state journals (we continue to be grateful to them, so read their ads, and, if you have a choice, prescribe their products) money became scarce, and we (the Association) considered discontinuing the *Journal*, or perhaps combining it with other journals to produce a regional publication. Reaction from the membership toward the idea was very negative, and the TMA Board made a decision to continue publishing a journal. I trust the Board and membership have considered their decision justified.

The decision to continue publication was based upon several considerations. First, as to regionalization, each state has problems of its own, which a regional publication could less readily address. Next, the *Journal* serves as the archives of medical activities within the state, and without the *Journal* such records would be lost. In addition, the matter of communication, which can be dealt with only superficially in a newsletter, still remains of prime importance. Finally, but certainly not of least importance, there is the function of the state journal as a forum for members to present their papers. Though relatively few avail themselves of the opportunity, almost none

were willing to see the opportunity perish. They just *might* want to use it sometime.

According to a rating of state and local journals sponsored each year by Sandoz, we are looking good, having last year again been awarded honorable mention. Advertising money, though not plentiful, has increased. On the other hand, as a urologist colleague found, you have to be careful. It seems he walked in on one of his elderly TUR patients one morning with the greeting, "Well, you're looking good this morning." To which the old gentleman replied, "Doc, don't ever tell a fellow he's looking good. You know the three ages of man? Youth, adulthood, and you're looking good!"

So where does that leave us? We are pleased, of course, by the Sandoz report. But what matters, and all that really can matter, is that we continue to be considered by you, the members of the Association, as being useful. Otherwise, though we may be looking good, we are in fact terminal.

J.B.T.

Centennial Salute

Since July is the month for saluting things, it seems an appropriate occasion for somewhat belatedly recognizing another milestone in Tennessee medicine, this time a centennial—that of the Chattanooga and Hamilton County Medical Society. It is a particular pleasure for me to do this, since that was my first home base. Not only was I born in Chattanooga, but it was at Erlanger Hospital just after World War II that as a surgical resident I was first introduced to pathology as a possibility for a satisfying medical career. So while I never was actually a member of the Society, I did go to some of its meetings in the mid-1940s; I was what you might call a "hanger-on." Neverthless, I feel close kinship with them.

The second reason I am particularly pleased to make this salute is that the president of the Society, Dr. Ed Strickland, was kind enough to invite me as editor of the *Journal* to the celebration, held on March 22 at the Chattanooga Choo-Choo Hilton's outstanding convention facility. It was a pleasant occasion for renewing old friendships. Not only is the president a long time friend—we were fellow house officers at Erlanger—but many of my surgical preceptors were there; without their instruction my surgical pathology practice would have been neither as enjoyable, nor, I am convinced, as useful. Not least, of course, among those old friends is Dr. Jack Adams, who sold me on pathology, and to whom I am therefore eternally grateful.

With his usual flair and attention to detail—a fine combination in a historian—James Livingood, Ph.D., has written the official history of the society in commemoration of its centennial.[1] In the state's early years, what is now Hamilton County was Cherokee Indian Territory, its only town Sale Creek, then in Rhea County, outside the Indian territory. With the purchase of land from the Cherokee in 1819, Hamilton County came into being, but it was not until the forced removal of the Indians to the Oklahoma Territory in 1838 that the area between the Tennessee River and the Georgia boundary was acquired. This included Ross' Landing, which would become Chattanooga. As was the situation in all frontier communities, the healing arts were practiced by a mixed bag of professionals and semi-professionals, few of whom had any formal training. At the opening of the Civil War in 1860, though Hamilton County had almost 12,000 white settlers, only about a fifth of them were in Chattanooga. There were 30 individuals listing themselves as doctors, six in Chattanooga. One was an 18-year-old woman, Elizabeth Kent.

By 1883, Chattanooga boasted a population of 12,892, of whom 7,807 were white. The 45 physicians residing there served not only Chattanooga residents but many of the 25,000 residents of surrounding Hamilton County. (There were more saloons in those days than doctors.) On March 20 of that year, a group of physicians assembled at the office of Dr. Stanhope Breckinridge at 5 East Eighth Street to organize the Chattanooga Medical Society. Although Livingood describes some other abortive attempts at organization, this was the birth of the first organization to have continuous activity, and the one whose centennial we celebrate this year. The membership elected as its president Dr. Lapsley Green, a graduate in medicine of the University of Louisville, and a Chattanooga practitioner since 1855.

A perusal of this most interesting volume turned up the names of many friends, some long dead, among them the surgeon who removed my appendix over 50 years ago. It evoked fond memories of house staff days at Erlanger Hospital, the not-so-fond ones, of which I am sure there were some, having been largely erased by time. In his preface, Dr. Livingood admits to the possibility of sins of omission, and even of commis-

sion, and perhaps there are. Certainly not every physician who ever practiced in Chattanooga could be listed in so small a volume, and one might not find the name of his favorite doctor. But few stones have been left unturned, and whatever sins Dr. Livingood may have committed are, characteristically, few, and certainly not mortal ones.

The Chattanooga and Hamilton County Medical Society, under the leadership of its then president, Dr. Robert W. Myers, and with the help of its very capable executive director, Mrs. Florence Richardson, has done us a great service, first in choosing Dr. Livingood to write the history, and then in publishing it. It deserves a place in the library of every physician with any interest at all in the history of Tennessee medicine, which should include us all, because Tennessee medicine is the sum total of all its parts, and as Dr. Livingood has made clear, Chattanooga physicians have done at least their share in making its history, not only at the local level, but in the Tennessee and American Medical Association, as well.

J.B.T.

1. Livingood JW: *Centennial History, Chattanooga and Hamilton County Medical Society*. Chattanooga, The Society, 1983.

Thoughts for Independence Day

With the surrender of Lord Cornwallis to General Washington at Yorktown on October 19, 1781, except for mopping up operations and negotiations an improbable war came to an even less likely conclusion: the gnat had conquered the elephant. It was an outcome similar to that in Vietnam nearly 200 years later, and for many of the same reasons. Having taken lessons from their Indian neighbors, the colonial army refused to employ classical tactics, adding confusion to British military operations. England was otherwise occupied with France, whose navy made an adequate naval blockade impossible. Finally, the war was never very popular at home, many of the English people and their leaders being of a mind to let the obstreperous colonies go their own way. They did, and the United States of America came into being.

Ill-prepared to fight a war at a time when the world was collapsing around us, we watched most of our navy come to rest at the bottom of Pearl Harbor in 1941, put there by a weapon our military men disdained: the airplane. Only miscalculation of their damage to our military strength kept the Japanese army out of California. Operations on multiple fronts, inept planning, and more miscalculations kept the enemy behind our water shield, enabling us to arm ourselves and ultimately to prevail.

Our allies were less fortunate. "Safe" behind the Maginot Line the French waited, finally seeing it outflanked by another new military weapon—mobile armor: the Panzer units. Only the superior industrial might of the United States and a lot of luck preserved Western Europe for democracy.

With Europe and Japan shattered, two powers emerged—the United States and the Soviet Union, each with vastly different interests and philosophies. The latter was, by virtue of sacrifice, just coming into its own. In the heat of battle, its natural enemies were blinded to its potential and the threat it posed to the Western nations and to world peace. The succeeding years saw the world polarized into one of the two camps. Only after the Iron Curtain closed did it dawn on the Soviet satellites that their freedom had evaporated.

Tyranny is nothing new, and history from its beginnings is filled with the names of noble men and women who have given their lives fighting against it—often against incalculable odds and usually virtually insurmountable obstacles. Where they have prevailed, it has been with the assistance of powerful allies—military powers or nature, for instance—or decadence in their overlords. Many of us have watched in our own lifetime the systematic murder of dissidents who have dared oppose despots—in Hitler's Germany and in subjugated France, Poland, Austria, and Czechoslovakia; in Russia, first under Stalin and then under subsequent regimes; in the communist China of Mao; in other Far Eastern countries and in African and Latin American nations under a variety of rulers; in Eastern European nations, and most recently in Poland, oppressed by the Soviet Union. It is much easier to preserve freedom than to gain it.

Having brought the children of Israel into the Promised Land, Joshua adjured them to choose that day whom they would serve—whether the Lord or the gods of the Caananites and Amorites. Whereas we each are still able—nay, required—to make that choice, we cannot always choose the temporal power we serve. Those so fortunate as to have been born free seldom regard their freedom with the same reverence, or

grasp it with the same tenacity, as those who have paid for it with blood. When responsibility is abrogated and freedom lost, choosing is not, as with God, an individual affair; those who surrender their freedom do it not only for themselves, but for generations yet unborn.

The freedom of those of us in the United States of America was bought with and has been defended at a great price in human blood and suffering. The cost has seldom even been considered by those purchasing freedom for future generations. Though a hothead, Patrick Henry spoke for all the fighters for freedom in not only his own but in succeeding generations born here and abroad, when he cried, "Is life so dear or peace so sweet that it must be purchased at the price of chains or slavery? Forbid it, Almighty God!" Many have chosen, and over the world are still choosing, death to involuntary servitude.

The United States is no longer safe behind its shield of water. Modern weaponry and transportation have put us within striking distance of an enemy anywhere on the globe, and the potential is there to wipe us out in the twinkling of an eye. As every schoolboy soon learns on the playground, one must deal with an enemy from strength, not weakness. To consider the Soviet Union as anything other than our enemy is to grossly misread history. That the Soviet Union has as much to lose as we in an all-out nuclear war may be true, but with sufficient superiority, there need be only the threat. A bully need never strike a blow.

There is no question that nuclear war is abhorrent, and that we should do our utmost to prevent it. Nevertheless, the alternative to nuclear war is not necessarily peace, and to purchase that alternative with oppression or even slavery for our offspring is to ensure that our honored dead have died in vain, and that government of the people, for the people, and by the people shall have perished from the earth.

If you think that would not be the consequence of Soviet domination, then why do Lech Walesa and Solidarity members, the most recent in a long line of dissidents, daily risk their lives in an attempt to cast it off?

> Take up the quarrel with the foe:
> To you with failing hands we throw
> The torch; be yours to hold it high.
> If you break faith with us who die,
> We shall not sleep, though poppies grow
> In Flanders' fields.
>
> —*In Flanders' Field,* John McCrae, M.D.

J.B.T.



Medical Education in the Community Hospital

To the Editor:

The Tennessee Medical Association's Annual Meeting is now over. I felt it necessary to convey some thoughts to you and, through the *Journal*, to the members of the Association. I was most humbled by the action of the Board of Directors in their honoring me with the Distinguished Service Award. I was even more humbled when I realized that I would be receiving an award similar to that given to Gene Fowinkle and Roy Tyrer.

I do not accept this award for myself. The 1970s were a time of growth and change in medical education. With expanding enrollments in medical schools and increased federal and state support for medical education, the recognition of the need to develop top quality programs in the training of primary care physicians and the recognition of these needs by university medical educators led to the enlistment of community physicians and community hospitals in medical education. We now have medical students and residents in training in institutions whose focus is to give primary and secondary levels of care to the general population. These developments expanded the horizons of medical education, bringing the student into the "real world" community and showing them the differences of practice and university medical centers and community hospitals.

This effort required a considerable investment. Where previously the town-gown conflicts inhibited medical education, we now saw the development of town-gown partnerships which gave our students excellent educational experiences. The clinicians who participated in these education programs were practitioners. Following the Hippocratic Oath, they "taught their art" often in the face of heavy community practice and personal time constraints. They gave willingly and they grew. They are the individuals who have led the revolution in medical education. These educational resources turned out to have different but equally vital opportunities and responsibilities in medical education. It is on behalf of those individuals that I accept the award from the Tennessee Medical Association.

We are now in a different time and a different decade. If the 1950s and the 1960s were the development of specialization in medicine and the 1970s were the period of exponential growth, the 1980s will be that of traumatic retrenchment. With decreasing resources for education and decreasing enrollments, the natural tendency will be for medical education to withdraw

back into the university medical center. The individuals involved in medical education do not want this; the clinical faculty in the communities do not want this and, most importantly, the students and residents do not want it. We physicians in the communities must join with the deans and chancellors of the universities. We must begin planning to muster the resources to maintain the role of the community hospital and practice experience in undergraduate and graduate medical education. We must work as much as possible to preserve what we have gained in the last decade.

George W. Shannon, M.D.
Director of Medical Education
The Medical Center
Assistant Dean
Medical College of Georgia

in memoriam

Hal Elder Bennett, age 69. Died May 16, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Richard A. Cohn, age 33. Died April 4, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Oliver William Hill, Jr., age 70. Died May 11, 1983. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

TMA Members Receive AMA Physician's Recognition Award

Fifty-nine TMA members qualified for the AMA Physician's Recognition Award during April 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Warren A. Alexander, M.D., Covington
Harvey Asher, M.D., Nashville
Charles A. Ball, M.D., Mt. Pleasant
James H. Boring, M.D., Cookeville
Isaac D. Brown, M.D., Mosheim
James A. Burdette, M.D., Lenoir City
Ramon L. Carroll, M.D., Chattanooga
Elijah G. Cline, Jr., M.D., LaFollette
Bernard M. Cohen, M.D., Sparta
Joe D. Cox, M.D., Gallatin
Loren A. Crown, M.D., Memphis
Elbert C. Cunningham, M.D., Harriman
Herschel L. Douglas, M.D., Johnson City
Daniel B. Drinnen, M.D., Dickson
John W. Ellis, Jr., M.D., Jefferson City
Henry C. Evans, M.D., Signal Mountain
Floyd B. Goffin, M.D., Johnson City
Walter S. E. Hardy, M.D., Knoxville
William T. Hayes, M.D., Memphis
Thomas W. Higginbotham, M.D., Memphis
Royce L. Holsey, Jr., M.D., Elizabethton
Karl F. Hubner, M.D., Oak Ridge
Tom N. Humphrey, M.D., Selmer
Richard G. Lane, M.D., Franklin
Lester F. Littell, Jr., M.D., Dayton
Gordon L. Mathes, M.D., Memphis
Bobby J. Millard, M.D., White Pine
Charles A. Mitchell, M.D., Sparta
Emmett P. Mobley, Jr., M.D., Paris
Robert W. Montague, M.D., Chattanooga
Joseph B. Moon, M.D., Knoxville
James A. Moore, M.D., Memphis
James N. Moore, M.D., White House
Lance Morehead, M.D., Knoxville
Denton D. Norris, M.D., Livingston
William F. Outlan, M.D., Collierville
Arthur M. Owens, M.D., Dunlap
Robert E. Palmer, IV, M.D., Memphis
C. Leon Partain, M.D., Nashville
Takis Patikas, M.D., Nashville
George L. Perler, M.D., Old Hickory
Jesse O. Quillian, M.D., Chattanooga
Charles T. Rhodes, Jr., M.D., Memphis
Deloris E. Rissling, M.D., Chattanooga
Alejandro A. Rivas, M.D., Old Hickory
Thomas V. Roe, M.D., Savannah
Ralph H. Ruckle, M.D., Portland
James S. Ruffin, Jr., M.D., Covington
Cecil E. Russell, Jr., M.D., Powell
Eugene M. Ryan, M.D., South Pittsburg
Clarence R. Sanders, M.D., Gallatin
Bobby J. Smith, M.D., Dickson
Robert B. Snyder, M.D., Nashville
Charles W. Stratton, M.D., Nashville
Miriam B. Tedder, M.D., Harriman
Nora B. Tiongson, M.D., Celina
John M. Wilson, M.D., Memphis
Dennis C. Workman, M.D., Nashville
Thomas F. Zimmerman, M.D., Winchester

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BENTON-HUMPHREYS COUNTY MEDICAL SOCIETY
M. Angela Skelton, M.D., Waverly

BLOUNT COUNTY MEDICAL SOCIETY
Lewis C. Sommerville, Jr., M.D., Maryville

CARTER COUNTY MEDICAL SOCIETY
Charles J. Wells, M.D., Elizabethton

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY
Timothy P. Davis, M.D., Chattanooga
Anthony L. Pearson-Shaver, M.D., Chattanooga

HARDIN COUNTY MEDICAL SOCIETY
John L. Freeman, M.D., Savannah
Joseph A. Peters, M.D., Savannah

KNOXVILLE ACADEMY OF MEDICINE
Clint T. Doiron, M.D., Knoxville
William Mitchell Hogan, M.D., Knoxville
Randall E. Pedigo, M.D., Knoxville
S. Darriel Slagle, M.D., Knoxville

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY
Radwan F. Haykal, M.D., Memphis
Robert M. Kraus, M.D., Memphis
Boyce Manrin Rains, III, M.D., Memphis
James C. Sikes, M.D., Memphis

(Student)

Mitchell S. Steiner, Memphis

national news

From the AMA's Office in Washington, D.C.

Health Planning Proposals Considered by Congress

When he took office, Ronald Reagan vowed to kill the health planning program set up in 1974. His administration has in fact managed to prevent the program's reauthorization.

Nevertheless, the program is still alive today and once again Congress is debating legislation to extend the life of the federal planning program. The debate comes at a time when hospitals are engaging in a building boom that reportedly led to capital expenditure increases of 80% between 1979 and 1982; and at least ten states are implementing or considering moratoriums or limits on hospital building.

The planning program's $64.8 million provided under a continuing resolution enacted by Congress to fund all health programs through September of 1983 has enabled 131 local health systems agencies (HSAs) and all 57 state health planning and development agencies to continue operations this year, although many have had to greatly restrict their activities. Another 20 HSAs have survived without federal funding.

Planning agencies, through the American Health Planning Association, are arguing to congressional appropriations committees that planning should be funded again in fiscal 1984—at a $102-million level.

Meanwhile, the House Commerce Committee voted 26 to 15 to continue the planning program until Oct. 1, 1986. The measure is similar to one adopted unanimously in the House last December and House approval of the same bill or some modification of it is expected again this year. Action in the Senate is still uncertain following the collapse of a compromise between interested parties in both bodies.

Debate in the House has revolved around the proposals of Rep. Henry Waxman (D-CA), who chairs the Commerce Health Subcommittee, and Rep. Edward Madigan (R-IL), its ranking minority member. Both would have loosened the requirements in the current planning law and, ironically, both were based on proposals approved by overwhelming majorities in the House last year, though neither was acted on in the Senate.

Last September, the House, acting on a compromise drafted by Madigan and Waxman, voted 302 to 14 to repeal the current planning program and replace it with a block grant that was funded for two years but could have continued for a third year if Congress so opted. To receive federal funding, states would have had to agree to require institutions to seek certificates-of-need (CONs) for capital expenditures of $5 million or more and for institutional services of $1 million or more. CON requirements would not have applied to equipment in physicians' offices.

After the Senate failed to adopt that proposal and after the Democratic gain of 25 seats in last fall's elections strengthened Waxman's hand, another compromise was put together in the lame duck Congress. That proposal, which had been agreed to by Waxman and Madigan and the major Senate players in the debate, would have extended the Health Planning Act until March 31, 1985, and set the CON thresholds at $1 million for capital expenditures and $500,000 for institutional health services.

Once again the House acted on the measure, passing it on a unanimous vote. Once again the Senate stalled, this time at the insistence of the then-HHS Secretary Richard Schweiker whose interference reportedly angered some influential Senate Republicans including Labor and Human Resources Committee Chairman Orrin Hatch of Utah who felt the compromise was preferable to the continuing resolution because the compromise contained higher CON levels than does the current law and because it contained a

specific repeal date.

As the discussions spilled over into the new 98th Congress, there at first appeared to be support for a compromise similar to the December agreement. Talks broke down, however, when Waxman began to suggest that the health planning program should be assured for a little longer in order to coordinate it with the recently enacted Medicare reimbursement changes.

Those changes will move hospitals to a diagnosis-related groups (DRGs) payment scheme beginning in October of 1983 but capital costs will be passed through until Oct. 1, 1986. After that, hospital capital costs will be included in the new DRG rates and states will be required through Medicare's Section 1122 process to review the need for these expenditures.

Waxman wanted to delay repeal from the December agreement's March 1985 date to the October 1986 date when capital costs are to fall under DRGs. But Senate Republicans reportedly would not buy that and negotiations broke down entirely.

On May 9, Waxman introduced his measure which resembled the December compromise in all respects except that it keeps planning intact until October 1986. On the same day, Madigan and Rep. James Broyhill (R-NC), cosponsored with Rep. Richard Shelby (D-AL) a bill that is nearly identical to the September approach.

In Waxman's subcommittee, there was some good-natured debate about the relative merits of the two bills, both of which had at one time or another been supported by all the sponsors of the new bills. Discussion was minimal, however, and the subcommittee approved Waxman's proposal on an 11 to 7 vote.

One week later Waxman's proposal was endorsed by the full Commerce Committee by a 26 to 15 margin. There are indications that Madigan and Shelby may try to construct another alternative to offer when the measure goes to the House floor. That could happen before the July 4 congressional recess.

Congress Acts Swiftly on Health Insurance for the Unemployed

Proposals to aid 11 million Americans who lost their health insurance when they or a family member lost their jobs passed a major congressional milepost in late May as the House Commerce Committee endorsed a plan that will cost about $2.6 billion in 1984.

Despite the objections of the Reagan administration and the nation's governors, the Commerce Committee approved the measure by a convincing 34 to 8 vote. Crafted by Rep. Henry Waxman (D-CA) and Rep. Edward Madigan (R-IL), the plan is a compromise that would terminate after three years. It would base federal funding on the level of unemployment in the state. It would require employers to provide laid-off workers health coverage for 90 days and to permit open enrollment of workers or dependents previously covered under a laid-off spouse's plan.

States would be required to cover at least nine days of hospital care and ten physician visits and to charge the worker a premium of at least 2% of his unemployment benefits. The state could employ a variety of administrative mechanisms, including Medicaid, insurers, or providers.

The bill originally would have denied federal funds to states with less than 6% unemployment. To accommodate members in states where overall unemployment is low but pockets of high unemployment exist, Waxman and Madigan modified the proposal to provide federal matching funds for programs directed to the areas with high unemployment within states with less than 6% unemployment.

The other principal change came after a heated debate and a cliff-hanging 21 to 18 vote. It prohibits funds in the bill from being used for abortions except when the life of the mother is in danger.

The major threat to approval of the Waxman-Madigan compromise came from Rep. Thomas Tauke (R-IA), who offered a substitute that reportedly had White House input. It would have included requirements for employers similar to those in the subcommittee bill but would have provided funds to all states under a block grant approach. Matching funds would not have been required of states.

Tauke and Broyhill produced letters of support from the National Governors Association and drew a caustic reply from Madigan who pointed to the "inconsistency of the governors' railing against the size of the federal deficit" last month and now rushing to embrace aid to the unemployed "as long as it's federally funded."

Despite the governors' support, the Tauke measure failed by 27 to 15. Following the defeat, about half of its 15 supporters turned to the Waxman-Madigan proposal which was endorsed 34 to 8.

Waxman and Madigan say the size of the final vote is an indication that should it gain final congressional approval, President Reagan will have no choice but to sign their bill. At the same time, they concede that the bill's eventual enactment by the House is anything but certain and Senate agreement is even less likely.

Even the House's timetable for further deliberations on the issue is still in doubt as the concerned parties wait for a signal from the House leadership on how to proceed.

Still to be resolved, for instance, are the questions of whether the bill will be referred to the House Ways and Means Committee where it could become bogged down or significantly altered and whether action, as seems likely, will be put off until after a House and Senate budget conference resolves differences in the funding the two bodies have provided for health insurance for the unemployed.

The House has provided $2.7 billion in 1984 and the Senate only $900 million. A conference on the measure will probably not take place until after the first week in June. But if funding is significantly reduced, Waxman and Madigan will have to make major revisions since Waxman made a commitment to Madigan to stay within whatever budget is eventually settled on.

Meanwhile, Senate action appears to have stalled. At the moment, Sen. Robert Dole's (R-KS) $1.8-billion, two-year block grant plan is seen as the major contender there. However, no further action in either body seems likely until middle or late June.

Kidney Dialysis Rules Reissued; Opponents Still Find Fault

In February of 1982, the federal government proposed new rules for paying kidney dialysis facilities and physicians. More than a year and 4,000 comments later, the final rules have been issued in much the same form as they were originally proposed.

The rules, published in the May 11 *Federal Register*, are intended to implement an incentive payment system that Congress first proposed in 1978 and that was to have gone into effect in July of 1979. The Department of Health and Human Services failed to fully implement the new system and Congress amended the proposal in 1981.

Controversy has surrounded the plan from the beginning. The new rules, which would take effect Aug. 1, 1983, appear to do little to abate the criticisms made of the earlier proposal, only slightly modified in the final rules.

Under the new rules, both physicians and facilities will receive the same amount for treating patients dialyzing in the facility as for those dialyzing at home. Hospital-based dialysis facilities will be reimbursed at slightly higher levels. Payment rates will vary according to regional wage indexes. Physicians and facilities will continue to receive 80% of the allowable payment from Medicare and 20% from the patient. An exception which has permitted 100% Medicare reimbursement of the cost of home dialysis equipment has been eliminated.

Both hospital and independent centers now are reimbursed for dialysis according to a single $138 per treatment national screen. However, based on contentions that they treat sicker patients and have higher costs than independent facilities, more than half of the about 700 hospital dialysis centers have received exceptions resulting in payments of more than $138. Only about 6% of the independent centers received exceptions.

Under the new rules, hospital payments would average about $131 per treatment and in the first two years payments would range from a minimum of $122 to a maximum of $138. After that, the range could be greater, depending on whether or not the Health Care Financing Administration decides to modify the wage index it is using to calculate payments. For independent facilities, average payment will be $127, with a range in the first two years of $118 to $138.

HCFA acknowledges that the new plan will pay hospital facilities an average of $8 less than the median of the group's cost per treatment and independents an average of $14 more than their median cost. It claims this will even out because facilities are expected to make money on home dialysis patients, which HCFA calculates cost the facilities only about $97 per treatment. Hospitals have about 24% of their dialysis patients on home dialysis compared to 11% of the independent center's patients.

Physicians now can be paid for treatment of dialysis patients in one of two ways. About 23% choose the initial method (IM) in which Medicare pays the facility an extra $12 per treatment for physician services and the physician bills the facility. Payments under this method have averaged about $210 per month for patients dialyzing in the facility and $25 for those at home.

About 73% of physicians have chosen an "alternative reimbursement method" (ARM) which paid them a monthly capitated stipend that averaged $220 for patients in the facility and $124 for home patients.

Under the new rules, the IM payment option will be eliminated and a single new rate will be established for home and in-facility patients. It will average about $184 a month and will range from a minimum of $144 to a maximum of $220.

Reimbursement rates for physicians and facilities will be updated only at HCFA's discretion. The current screens have not been updated since they were put in place in 1974.

The regulations are so little changed from the original proposed regulations that most of the groups that criticized them in the first place say they are far from satisfied with the final product. Both the National Association of Patients on Hemodialysis and Transplant and the Renal Physicians Association are considering lawsuits to prevent implementation of the new rules and several congressional committees say they are still not satisfied with the regulations, which resulted in three congressional hearings when they were first proposed.

Complaints include fears that the facilities will be forced to cut staff to keep costs below the payment levels, concerns that facilities will encourage home dialysis for patients who are good candidates for transplants, the belief that the data are used to develop the rates is old and inadequate, and charges that the payments for hospitals are inadequate and so similar to those for independent facilities that the regulations flaunt the law's mandate for a two-rate structure.

FTC Authority Clarified in House Bill

An amendment that clarified Federal Trade Commission (FTC) authority over professionals and state licensing boards was approved by the House Energy and Commerce Committee in May.

The proposed legislation says that the FTC cannot override state laws that regulate the training, education and licensing requirements of professionals. For the first time, however, FTC's authority over professionals' commercial and business practices has been recognized.

Where state laws properly regulate certain anticompetitive business practices, the FTC could not interfere, under the new language. But the FTC could intervene when state regulatory agencies improperly or insufficiently regulate business practices. The FTC also would be permitted to challenge state laws that relate to education, training and experience but appear to restrict business or commercial activities. A 16-page report released by the Energy and Commerce

Committee says that under the proposed amendment, professionals or state licensing boards cannot:

- unjustifiably deny hospital admitting privileges;
- impose restrictive apprenticeship requirements that discourage the development of effective alternative forms of health care;
- restrict the scope of non-MD practices which have been performed successfully for years;
- restrict tasks or duties of other professional groups, which they are qualified by training and education to perform;
- promulgate regulations, of any kind, outside their authority.

"This amendment will provide appropriate guidance and clarification for the FTC and courts on points of major controversy," the report says.

Congress Moves Toward Budget Resolution

The Senate approved a 1984 budget resolution May 19. The health portion of the resolution, adopted 50 to 49, is very similar to one proposed by the Senate Budget Committee and modified by the Senate in earlier budget debate. It would provide $900 million in 1984 and $1.8 billion over the next 2.5 years for health insurance for the unemployed.

Medicare cuts in the resolution total $824 million in 1984 and $9.5 billion over the next five years. This would be in addition to some $10.5 billion in savings projected from the diagnosis-related groups payment plan enacted earlier this year. Medicaid would be cut by $53 million in 1984 and by a little more than $3 billion over five years.

Both the Medicare and Medicaid funding reductions are only about half what President Reagan had requested. In addition, in debating the Budget Committee's recommendation the Senate added $49 million in each of the next three years for providing health care to pregnant women. Attempts by Senate Republicans to increase Medicare cuts were soundly defeated and a proposal by Democrats to add back $400 million in Medicare funds was only narrowly turned aside.

The Senate action contrasts with a House budget resolution that limits Medicare savings to those anticipated from DRGs, provides $2.7 billion for health insurance for the unemployed in 1984, and adds $350 million in Medicaid funding for a child health assurance program.

A House Senate Conference to resolve the differences in the two bodies' budget plans was delayed until June.

Major differences between the plans center on the Medicaid and Medicare budgets and on the funding for the health plan for the unemployed. Debate on the health insurance for the unemployed is expected to concentrate only on funding, leaving the design of the program to the authorizing committees with jurisdiction over the issue.

The Senate Budget Committee has recommended that Medicare savings be achieved by increasing and means-testing Part B premiums and by freezing allowble fee levels for physicians who don't accept the Medicare assignment. Though the recommendations are not binding on the committees charged with enacting changes to meet with budget mandates, they may be debated by budget conferees.

Reagan Administration Persists on "Squeal Rule"

Early this year, judges in both Washington and New York blocked the controversial "squeal rule" which requires federally funded family planning clinics to notify parents when their teenagers receive prescription contraceptives.

But, in May the Reagan administration went back to the Washington, D.C., Appeals Court to urge reinstatement of the rule.

Government appeal of the second suit, filed by New York State's Attorney General, was set to be heard in New York on June 20.

In West Virginia, an Appeals Court postponed action on a third suit after the Washington and New York rulings.

In Utah, a federal judge has blocked a state "squeal rule" until a full hearing on the rule on August 5. This law, originally scheduled to take effect early in May, requires that retailers or physicians ask for identification and notify parents before dispensing either prescription or non-prescription birth control products to teenagers.

Attorneys for the administration say that a 1981 amendment passed by Congress was designed to make parents more involved in their children's sexual decision-making. Simply encouraging teenagers to talk to their parents has not helped reduce the number of teenage pregnancies, they say.

"It is absolutely clear that the Secretary of Health and Human Services had the authority to issue the regulations challenged in this case," argued Justice Department lawyer Carolyn B. Kuhl before the Washington, D.C., judge. "The family cannot participate in an activity that it does not know is taking place . . . It is entirely legitimate for a parent to be involved in family planning decisions of an adolescent child."

But family planning groups charge that the "squeal rule" invades a teenager's right to privacy and violates patient-physician confidentiality. Furthermore, there is little basis for the government's contention that notifiction would protect the health of teenagers; precription contraceptives pose few problems to women under age 18, they say.

The American Medical Association and the American College of Obstetricians and Gynecologists, siding with family planning groups, contend that a notification rule will scare teenagers away from family planning clinics and lead to an upsurge in adolescent pregnancies. "Teens are five times more likely to die from pregnancy and childbirth than from the use of oral contraceptives," Dr. Luella Klein, ACOG's Vice President, said at a press conference earlier this year.

Government Keeps "Baby Doe" Concept Alive

Stung by a recent defeat in court, the Department of Health and Human Services (HHS) has set out to revise the controversial "Baby Doe" regulation. Predictions are that it will be the procedure rather than the substance of the rule that is changed.

The rule required hospitals to post notices in delivery wards and nurseries publicizing a 24-hour "hotline" to be used in cases of suspected neglect. It was rushed into effect in only 15 days.

This was a "hasty and ill-considered" response to one of the "most difficult medical and ethical problems facing our society," U.S. District Court Judge Gerhard A. Gesell ruled in April.

"We are now in the process of reviewing the regulations in light of the Judge's decision," explained an HHS spokesman. The government has not yet appealed the case. It is suspected that HHS will abandon the courtroom battle once the regulation is rewritten. The revision, a joint effort of the White House and the Departments of Justice and HHS, is believed to contain a section that explains the standards the government wants applied in the treatment of Down's Syndrome, spina bifida and anencephala.

Meanwhile, committees in the House and Senate approved "Baby Doe" legislative strategies designed to protect handicapped newborns. For both states and hospitals, the penalty of noncompliance is severe: loss of federal funding assistance.

House bill H.R. 1904 calls for infant care guidelines and requires that states set up a hotline system to report cases of suspected neglect. States that choose not to comply would lose all funding for child abuse programs.

The Senate bill S. 1003 would establish a government advisory committee to study the treatment of ill newborns and recommend standards of "appropriate" care. Based on the findings of this advisory committee, the Health and Human Services Secretary would propose regulations to establish "decision-making procedures" within every hospital. Hospitals that do not comply would lose all Medicare and Medicaid funding.

No cases of infant mistreatment have been uncovered by the government's Baby Doe activities. Of 822 calls received on the HHS Baby Doe hotline, 21 involved complaints of infant care and seven prompted federal investigation. However, according to Patricia Mackey of the HHS Office of Civil Rights, the government has not recommended treatment, feeding or relocation of any infant referred on the Baby Doe hotline.

The AMA told Congress that it supports reauthorization of the Child Abuse Act to which these amendments are tagged, but opposes congressional decision-making in the nursery. "The AMA believes governmental intervention intrudes on the rights and responsibilities of parents, family, physicians, and institutions. Imposition of procedures would create an atmosphere of unwarranted mistrust and create legal pitfalls of enormous proportions," says AMA Executive Vice President James H. Sammons, M.D.

AIDS Number One Health Problem, Dr. Brandt Says

Assistant Secretary for Health Edward N. Brandt, Jr., M.D., has urged all physicians and health care institutions to report cases of Acquired Immune Deficiency Syndrome (AIDS) to state health departments, assisting the government in the investigation of what he calls "the nation's number one health problem."

Meanwhile, AIDS patients have been granted almost automatic eligibility for disability benefits under Social Security. SSA made the decision in May to provide coverage after the Center for Disease Control (CDC) and scientists at John Hopkins University advised that the disease has identifiable symptoms and has "an exceedingly high mortality rate."

In his first news conference on AIDS, Dr. Brandt announced that CDC is expected to make AIDS "a notifiable disease in all states, improving the reporting and surveillance procedures for the disease around the country." Until now, reporting procedures varied from state to state and the CDC was not always routinely notified of cases.

The CDC also plans to assign public health advisors to San Francisco, Los Angeles and Miami. Because most cases of AIDS appear in urban areas, city health officials have an especially important role to play in the AIDS investigation, Dr. Brandt stressed.

"Every physician should be aware of the possibility of AIDS when patients with malaise, weight loss, lymphadenopathy, and light fever are diagnosed," Dr. Brandt said. "Cases of AIDS should be reported immediately to state and local health officials. These officials and the Public Health Service can provide consultation to physicians. While the exact association between blood and blood products and the development of AIDS is unknown, physicians should adhere strictly to medical indications for transfusions. Autologous blood transfusions should be encouraged."

Dr. Brandt pledged that $14.3 million will be spent on AIDS research in fiscal 1983, nearly three times last year's AIDS expenditure. He announced four of the new AIDS research grants awarded by the National Cancer Institute to R. Gordon Douglas, M.D., of Cornell Medical Center, New York; James Mullins, Ph.D., of Harvard University, Boston; Frederick Siegel, M.D., of Mt. Sinai Medical Center, New York; and Paul Volberding, M.D., of the University of California at Los Angeles. Two new AIDS grants from the National Institute of Allergy and Infectious Diseases will go to Arye Rubenstein, M.D., of Yeshiva University, New York; and John Fahey, M.D., University of California, San Francisco. More grants will be awarded soon.

Dr. Brandt reminded the public that:

- sexual contact should be avoided with persons known or suspected of having AIDS;
- members of groups at increased risk for AIDS should refrain from donating plasma or blood products;
- researchers should evaluate the effectiveness of screening procedures in identifying and excluding blood with a high probablity of transmitting AIDS;

AIDS is not a threat to the general public, Dr. Brandt added. "We have seen no evidence that it is breaking out from the originally defined high risk groups. I personally do not think there is any reason for panic among the general population."

In San Francisco, some landlords have evicted tenants who contracted the disease. The city has since established counseling groups to provide housing for victims, and has offered space in a special ward at the San Francisco General Hospital.

The San Francisco Police Department has dispensed special gloves and masks for police officers handling "a suspected AIDS patient." The officers fear they could catch the disease by administering mouth-to-mouth resuscitation to patients.

Los Angeles medical personnel have refused to care for AIDS patients or handle blood samples and transfusions. AIDS hotlines have received calls asking if the disease can be picked up from toilet seats or subway straps.

In New York, inmates of the state prison in Auburn refused to eat meals or use utensils from the prison's mess hall, fearing that food prepared by the prison might be contaminated by other inmates with the disease. Thirty-five inmates in New York prisons have been confirmed as having AIDS.

"There is no evidence to date that indicates AIDS is spread by casual contact. On the contrary, our findings indicate that AIDS is spread almost entirely through sexual contact, through the sharing of needles by drug abusers, and less commonly, through blood or blood products. For these reasons, there is no cause for fear among the general public that individuals may develop AIDS through casual contact with an AIDS patient," Dr. Brandt said.

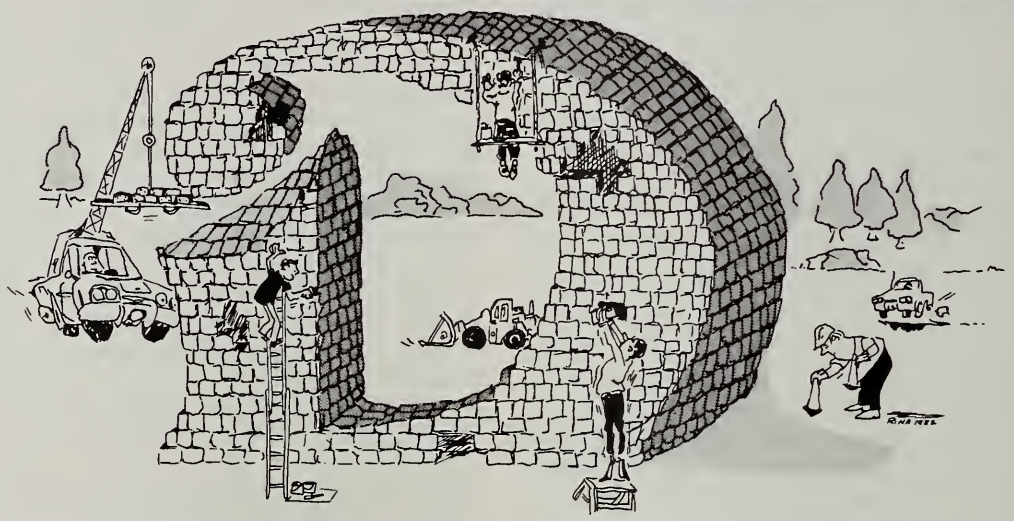
announcements

CALENDAR OF MEETINGS

NATIONAL

Aug. 7-11	American Society for Pharmacology and Experimental Therapeutics—Philadelphia
Aug. 7-11	Western Hemisphere Nutrition Congress—Miami Beach
Aug. 8-12	Aspen Conference on Pediatric Disease (Infectious Disease)—The Gant, Aspen, Colo.
Aug. 11-14	Glaucoma and Lasers in Ophthalmology (Alabama Acad. of Ophthalmology)—Gulf State Park Resort, Gulf Shores, Ala.
Aug. 13-20	Development of the Able Mind (Southern Calif. Neuropsychiatric Inst.)—Mauna Kea Beach Hotel, Kamuela, Hawaii
Aug. 13-20	Fine Needle Aspiration (Univ. of Calif.)—Maui Surf Hotel, Kaanapali Beach, Maui, Hawaii
Sept. 29-Oct. 1	American Association for the Surgery of Trauma—Drake Hotel, Chicago
Sept. 29-Oct. 2	American Society of Internal Medicine—Hyatt Embarcadero, San Francisco

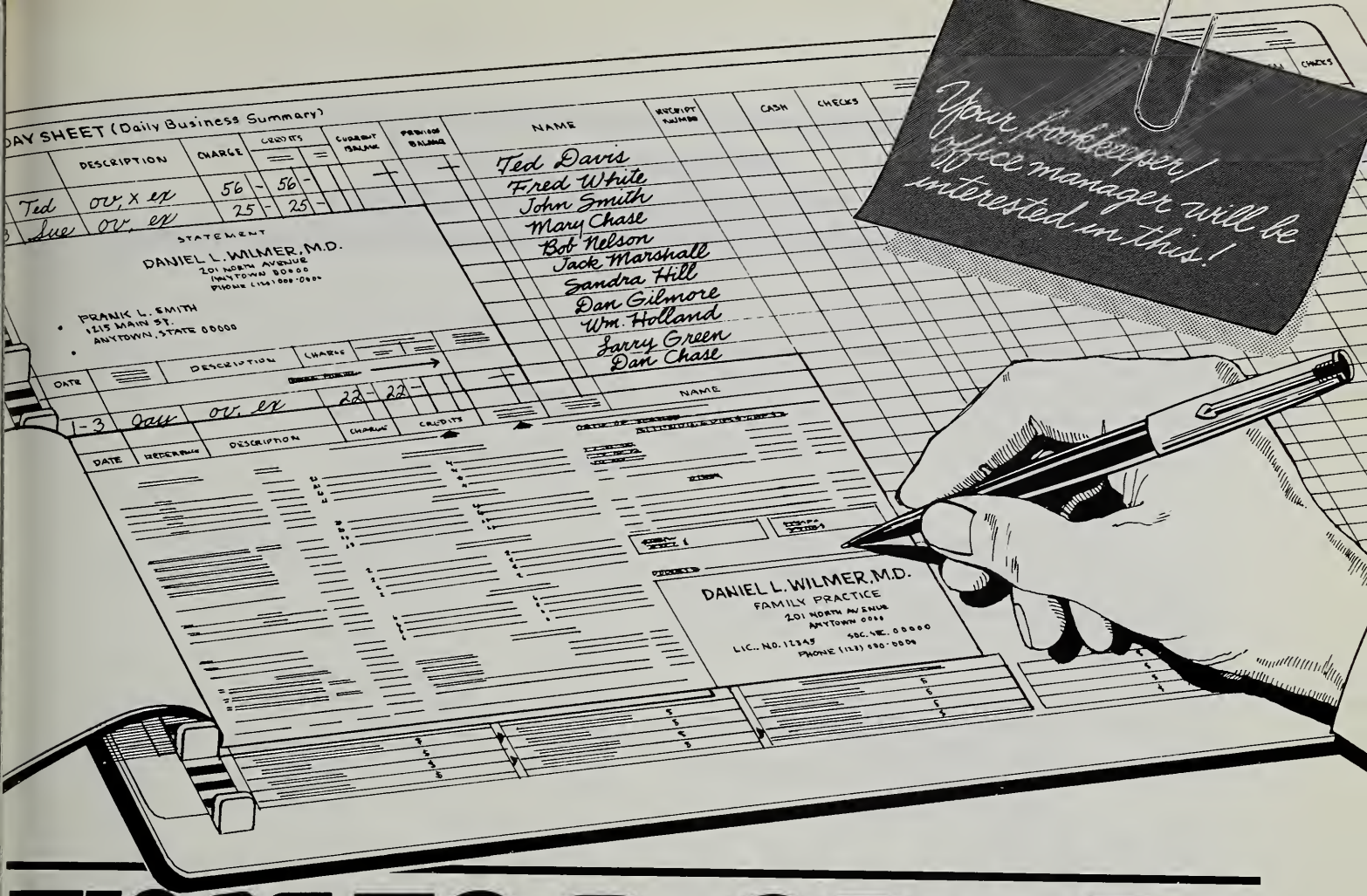
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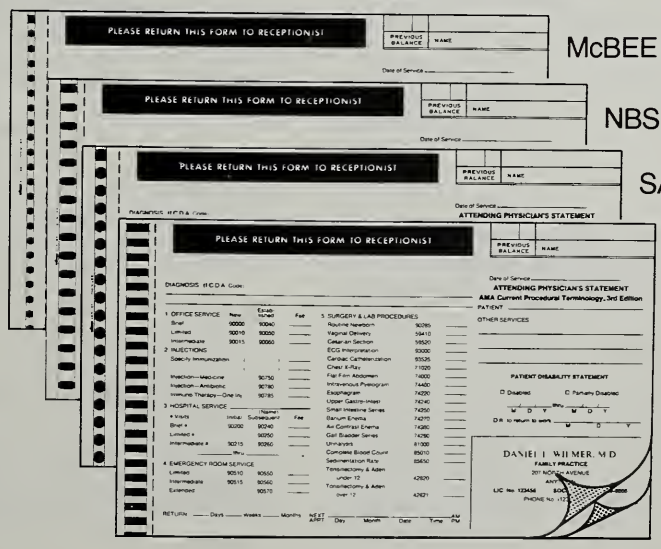
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IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
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Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Sept. 15	Annual William F. Orr Lecture in Psychiatry (1 hour)
Sept. 19-23	Internal Medicine Review (40 hours)
Sept. 28-30	Recent Advances in Blood Banking
Oct. 7	Treatment of Chronic Depression (for nonpsychiatrists) (7 hours)
Oct. 13-16	International Surgical Group
Oct. 27-29	New Frontiers in Cancer, Annual Medical Alumni Reunion
Nov. 2-4	Tennessee Public Health Association Annual Meeting
Nov. 2-5	12th Annual Rhamy-Shelly Lectureship in Urology
Nov. 9-11	2nd Tennessee Perinatal Education Conference

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.

Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
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Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

July 31-Aug. 4	"Hands On" Practical Skills Workshop—Paris Landing State Park
Sept. 14-15	Diabetes Mellitus: Basic and Clinical Considerations
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Oct. 19-21	Cardiology Update—Chattanooga
Nov. 10-11	Sleep Disorders

Knoxville

Oct. 13-15	Obstetrical Office Ultrasound—Gatlinburg
Oct. 20-22	Cancer Concepts '83—Gatlinburg
Oct. 23-25	4th Annual Smoky Mountain Seminar in Ob/Gyn—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

Sept. 1-3	Recent Advances in Cardiovascular Surgery
Sept. 22-24	General Surgery
Sept. 30-Oct. 1	Pulmonary Update
Nov. 10-11	Sleep Disorders

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

EAST TENNESSEE STATE UNIVERSITY

Continuing Education Schedule

Oct. 18	Antimicrobial Therapy of Life-Threatening Infections—Sullins Humanities Center, Bristol, Va.
Oct. 27-29	Anesthesiology Review Seminar—Gatlinburg
October	Family Therapy
Nov. 2	The Management of Stress—Bristol, Tenn.
Nov. 4-5	Asthma—Martha Washington Inn, Abingdon, Va.
November	Pain Management
December	Breast/Colorectal Cancer
January	Medical Updates V: A Review of Recent Advances in Medicine—Vail, Colo.

For information contact Sue Hutchinson, M.P.H., Medical Program Coordinator, Office of Continuing Medical Education, ETSU, Quillen-Dishner College of Medicine, P.O. Box 19660A, Johnson City, TN 37614, Tel. (615) 928-6426, ext. 204.

IN SURROUNDING STATES

MEDICAL COLLEGE OF VIRGINIA

July 28-30	Pediatrics at the Beach, 4th Annual Pediatric Primary Care Conference—Cavalier Hotel, Virginia Beach, Va. *Credit*: 12¾ hours AMA Category 1. *Fee:* $250.

For information contact Sheri Rosner, Box 48, MCV Station, Richmond, VA 23298, Tel. (804) 786-0494.

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For information contact Jean E. Shelton, M.D., 800 W. Olney Rd., Norfolk, VA 23507, Tel. (804) 628-3798.

MEDICAL COLLEGE OF GEORGIA

Sept. 14-16	Neonatology: The Sick Newborn—DeSoto Hilton Hotel, Savannah, Ga. *Credit*: 17.16 hours AMA Category 1. *Fee*: $150.

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OF SPECIAL INTEREST

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A Fresh Look at JCAH Standards

With respect to the standards of the Joint Commission on Accreditation of Hospitals (JCAH), it is imperative to emphasize that there is one primary, overriding principle to which the AMA is devoted. It is that physicians, individually and collectively, as members of hospital medical staffs are and should be responsible for staff structure, credentials, privileges, quality assurance, and due process. It is equally important to recognize that total responsibility for the quality of patient care does, and must, rest where it has always been: with the individual hospital governing board and its medical staff.

It is in keeping with that unswerving commitment that the AMA Board of Trustees had asked the JCAH to incorporate certain provisions into the Medical Staff chapter of its 1984 "Accreditation Manual for Hospitals," which was expected to be published in August, 1983. The AMA's views on those provisions were circulated to members in February, 1983, for their review. Reaction was immediate and often emotional. As a consequence, on April 8, 1983 the AMA Board of Trustees confirmed an action taken in March by the AMA Commissioners to the JCAH.

The action outlined a set of principles for inclusion in future drafts of the Medical Staff chapter. These are:

1. Continue the use of the term "Medical Staff" in the title of the chapter and throughout the accreditation manual.
2. Delete references to dentists, podiatrists, oral surgeons and other limited-licensed practitioners in the Medical Staff chapter.
3. Ensure access for limited-licensed practitioners.
4. Require greater than a simple majority of fully licensed physicians on the medical staff executive committee in acute-care general hospitals.
5. Provide for exceptions to item 4 in other types of hospitals.
6. Through appropriate language relating to admissions and the responsibility for the medical care of patients, ensure that all hospitalized patients receive the same standard of care.

At its meeting on March 27, the JCAH Standards and Survey Procedures Committee instructed JCAH staff, with professional assistance, to draft standards language for principles similar to those approved by the AMA Board of Trustees.

The AMA Board had previously requested the JCAH Board of Commissioners to defer final action on any revisions in the Medical Staff chapter until its August meeting, to allow for full consideration of the issue by AMA members. The JCAH Standards and Survey Procedures Committee has therefore instructed its subcommittee on the Medical Staff standards to recommend a new draft of the Medical Staff chapter to the full committee. No final action on the Medical Staff standards is expected before the August meeting of the JCAH Board of Commissioners, with publication of the 1984 "Accreditation Manual for Hospitals" scheduled for October 1983.

Throughout the remainder of the standards revision process, the AMA will continue to strive for the development of standards that provide for quality patient care, are flexible, meet the needs of physicians and hospitals, and recognize the legal aspects of standard-setting activities. Other members of the JCAH are the American College of Physicians, American College of Surgeons, American Dental Association, American Hospital Association, and one public member.

Prepared by AMA Staff

Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism, other drug addiction, psychiatric disorders or senility. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

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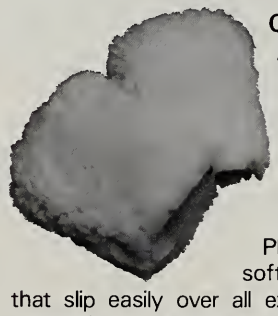
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The Effects of Low Doses of Ionizing Radiation

E. W. WEBSTER, Ph.D.

The troubled question of the potential harm resulting from exposure to low doses of x-rays or gamma rays daily invades the practice of medicine. Examples abound among practitioners and patients alike and reflect the concerns of the public at large. Thus nurses who occasionally attend patients being treated for cancer with radioactive materials question their own cancer risk and the possible genetic harm to their future children. A few weeks ago I received a letter from a patient reading as follows: "When I was 16 I had an ulcer and received a stomach x-ray. Eight years later I had a follow-up GI series, and another seven years after that. I cannot undo the harm already done. Do I sit and wait to get stomach cancer?" Such a letter was unheard of 20 years ago and illustrates the increasing anxieties attending medical radiation. These anxieties parallel the emergence of a small but vocal number of scientists who have disseminated the idea that radiation is much more damaging than responsible commissions and agencies have estimated, an idea encouraged by the selective reporting of the media. Typical of the alarmist viewpoint is that of Dr. John Gofman, who in a *New York Times* interview published on Sept. 26, 1982, stated "my estimate is that in the next 30 years medicine is going to sign about 1.4 million death warrants as a result of unnecessary radiation exposure." An educational thrust to correct these exaggerations is overdue.

Radiation Dose

Let me first define the boundaries of the types of radiation I will discuss and introduce the quantitative units. The subject is *ionizing* radiation, which, in contrast to other forms of radiant energy, can deliver enough energy to detach electrons from atoms and molecules in its path. Ionizing radiation includes x-rays, together with the radiations, beta and gamma rays, from radioactive materials. It does not include microwaves, used primarily for communication and localized heating, or ultrasound. I will further limit my topic by excluding the densely ionizing alpha rays, protons, and neutrons, which are seldom encountered in the applications of radiation, including medicine.

The unit of radiation dose I will employ is the *rad*. This is quantitatively similar to the older roentgen unit, and to the rem unit, usually employed in the guides and codes concerning radiation protection. The rad connotes a specific amount of energy deposited in 1 gm of material

From the Radiological Sciences Division, Radiology Department, Massachusetts General Hospital, Boston.

Presented as part of the Charles C. and Mary Elizabeth Lovely Verstandig Distinguished Visiting Professorship at the annual meeting of the Alumni of the University of Tennessee College of Medicine, Memphis, Oct. 28, 1982.

Reprint requests to Radiological Sciences Division, Radiology Department, Massachusetts General Hospital, Boston, MA 02114 (Dr. Webster).

subjected to irradiation and its size is best appreciated through specific examples. The typical dose from background radiation in the United States is about 0.08 rad/year, increasing in the mountain states to about 0.15 rad/year. In certain parts of the world the level is much higher, reaching 1.3 rads/year in Kerala, India (Fig. 1). Doses received by the skin per film (per examination in the case of CT) in a few common x-ray examinations are shown in Fig. 2.

Low-level radiation may be defined to cover doses in the range 0 to 20 rads. In addition to background radiation, this range includes most occupational doses, which average about 0.5 rad/year per employee, and that due to diagnostic medical procedures as indicated in Fig. 2. As shown in Fig. 3, the average radiation dose of about 0.2 rad/year received by the U.S. resident is almost entirely due to the background and medical radiation in about equal amounts, with only about 5% from other sources.[1] The remainder of this paper will discuss the degree of hazard, if any, from these doses.

Radiation Effects

A large number of harmful biological effects are associated with radiation exposure. Many of them occur rapidly, within days or months after relatively high doses on the order of 100 rads or more, but three effects occur much later and can be produced at the lower levels of dose. These are, in order of importance, increases in cancer incidence in exposed persons, in hereditary illness in subsequent offspring, and in developmental malformations in children exposed during gestation. The questions to be answered concern the dose level at which these effects have been observed, the possibility of a threshold level below which they cannot occur, and the probability of their occurrence as a function of dose.

Table 1 summarizes some early effects and late effects and their relationship to the threshold question. Gross damage to specific tissues such as lens opacification has been manifested clinically only after relatively high dose levels, and is the result of multicellular effects. On the other hand, effects developing from damage to single cells are stochastic (or probabilistic) in nature and are likely to have a finite although small probability at the lowest levels. It is these effects that determine the likely health hazards at the lowest doses.

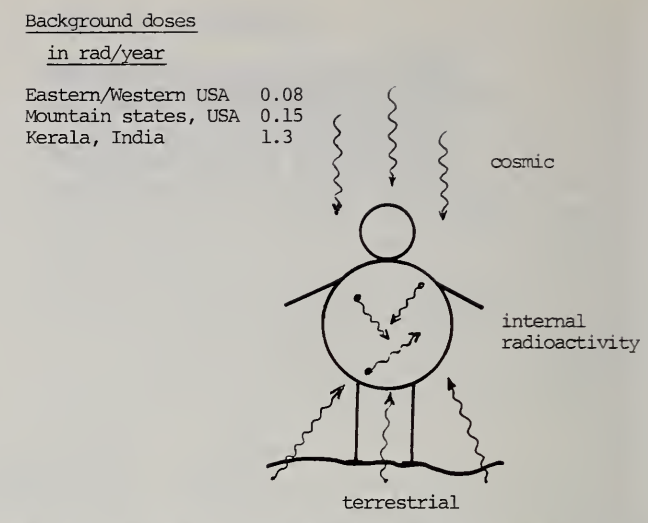


Figure 1. Sources and typical doses of background radiation in the United States.

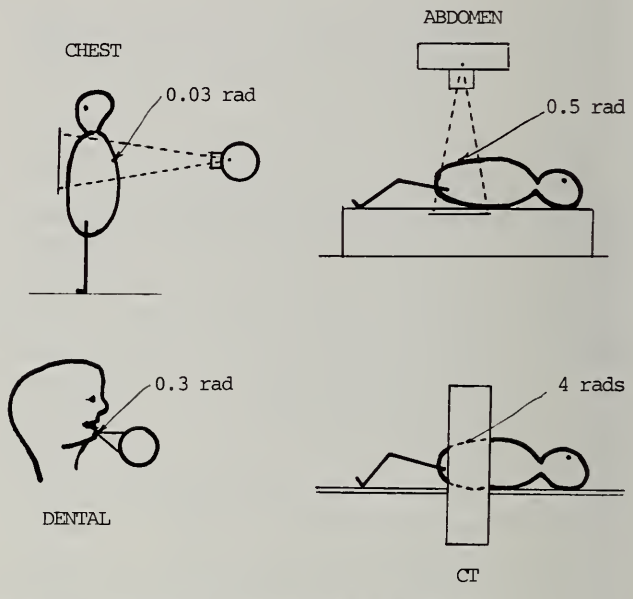


Figure 2. Skin doses in typical x-ray examinations.

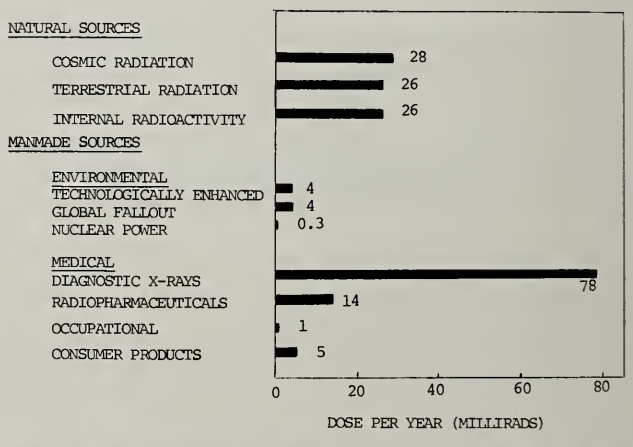


Figure 3. Per capita annual doses from radiation sources in the United States. (Based on data from Upton[1] and 1980 BEIR Report.[4])

Cancer Induction

The induction of malignant disease has been well documented in mammalian populations, including man, at doses down to about 25 rads. At lower doses, such as 10 rads, the demonstration of excess cancer is beset by the problem of statistical significance. This is due to the fact that radiation-induced cancer is not different from the naturally occurring disease, that the incidence of cancer in a population has a considerable statistical variability, and that the excess of cancer induced by low radiation levels is small compared to the normal incidence. The problem is illustrated by the following example: in a general population of 1 million persons, are we likely to demonstrate the excess leukemia produced by 1 rad of x-rays delivered to the whole body? The answer is *no*. The normal leukemia incidence is about 70 per million per year, or 1,750 cases in 25 years. The standard deviation of this number is ± 42. In an irradiated population the leukemia excess estimated by international review commissions[2-4] is about 25 cases in a 25-year time span following the irradiation; such an excess is hidden by the statistical variability of the normal incidence (Table 2). The largest population so far examined is the Japanese A-bomb survivor population, involving follow-up of about 80,000 persons over approximately 30 years, and the number of leukemia cases is insufficient to confidently determine the risk at the lowest doses. Thus direct solution of the low dose cancer problem at levels of the order 1 rad is improbable unless the risk is considerably greater than is provided by current authoritative estimates.

For radiation doses of the order of 100 rads there is a wealth of information, allowing a confident estimate of the cancer risk following such doses. But in the following four typical examples shown in Table 3, it is obvious that even with

TABLE 1

THRESHOLD AND NON-THRESHOLD EFFECTS OF IONIZING RADIATION

		Rads
Threshold effects	skin erythema	300-1,000
	cataract	250
	fertility reduction	100
	WBC depression	25
Probable threshold	fetal malformation	10
Probably no threshold	chromosome breaks	
	cancer induction	
	genetic effects	
	life span shortening	

TABLE 2

EXAMPLE OF STATISTICAL PROBLEM

25 year study of radiation-induced leukemia following 1 rad of x-ray or gamma ray dose whole body

Population size: 1 million

Average normal U.S. mortality: 70 per year
1,750 in 25 years $\pm$ 42

Estimated increase in mortality: 1 per year
25 in 25 years

THIS IS NOT A SIGNIFICANT INCREASE
EVEN 10 MILLION PERSONS WOULD NOT BE A
LARGE ENOUGH POPULATION

TABLE 3

CANCER FROM HIGH RADIATION DOSES

	Result	Mean Dose	No. of Persons	Increased Cancer	Percent
Example 1 (Hempelmann et al[5])					
Radiotherapy to upper chest in infants	Thyroid cancer	120 rads	2,604	22	0.84
Example 2 (Beebe[6])					
Japanese A-bomb survivors	Increase in cancer (many types)	14 rads	82,000	190	0.23
Example 3 (Boice and Monson[7])					
Multiple fluoroscopic chest examinations	Increase in breast cancer	150 rads	1,047	18	1.6
Example 4 (Smith and Doll[8])					
Radiotherapy to spinal region (for ankylosing spondylitis)	Increase in cancer	347 rads (marrow)	14.111	25 leukemia	0.18
				115 other cancers	0.82
				140 Total	1.00

these relatively large doses the cancer risk is small—on the order of 1 extra cancer case or death in 100 persons.[5-8]

It might be thought that the cancer experience of populations living at higher than normal background radiation levels might provide data for assessing the low-level radiation risk; after all there are about 5 million persons living in the mountain states of the United States receiving about 1.5 rads more dose than the remainder of the U.S. population over a 30-year time span. But here again the predicted excess would be too small for statistical significance. It is of interest that Frigerio and Stowe[9] have examined the data, part of which is presented in Table 4. Far from finding a suggestive increase, they find fewer cases of cancer in the high altitude population than in the United States as a whole. They concluded that if there is an increase in cancer associated with an increase in background radiation, it is small compared to the decreases produced by other population factors such as diet and life-style, although a threshold radiation level higher than the background level cannot be excluded.

Consideration of some physical facts about background radiation lead to some reassuring conclusions concerning radiation and cancer. The body irradiated by background, as noted in Table 5, experiences a flux of about 1 million photons/min, creating about 400,000 ionizations/min in each gram of the body. Each cell of the roughly 10^{15} in an adult person will experience several ionizations during the course of a year. Yet the chance that a cancer will be produced anywhere in the body by the radiation is estimated[2-4] only at about 2 in 100,000 persons per year, assuming that the risk is proportional to dose. Clearly the vast majority of ionizations produced in the body have no carcinogenic or other deleterious effect; when initial biologic damage occurs, it progresses to a malignant state extremely rarely.

Most of the epidemiologic studies that have been conducted after low doses of radiation have either failed to demonstrate a cancer increase, or, when positive, have been inadequately conducted, leading to erroneous or unconvincing results.[10] Two areas of study where radiation doses on the order of a few rads were received, however, appear to demonstrate an excess of cancer and a risk proportional to the radiation dose. These are the studies by Modan et al[11] in Israel of thyroid carcinoma following childhood radiation treatment of ringworm, and by Stewart et al[12] in England (and also by others) of the association of childhood cancer with abdominal x-ray examination of the mother during the pregnancy. Yet even these two studies have been subject to continuing controversy and are not incontrovertible.

In the Modan study (Table 6) about 11,000 children who had received about 400 rads to the scalp were followed up for a mean period of 18 years and a variety of cancers of the head and neck in excess of those expected in the absence of radiation were found. Of considerable significance is the fact that an excess of thyroid cancers was apparent (10 vs. 2 expected) although the thyroid dose for a single treatment was only about 7 rads. The absolute risk of thyroid cancer on this basis was estimated at 6.3 per million per rad per year. This point fits well on a linear relationship to dose drawn through the data points of another study at much higher doses to which we referred earlier—thyroid cancer development in persons irradiated as infants for enlarged thymus glands[5] (Fig. 4). There are several problems with the Modan study, however. The children were treated in Israel between the years 1948 and 1960

TABLE 4

CANCER RATES IN U.S. WHITE POPULATION IN THE SEVEN STATES WITH HIGHEST BACKGROUND COMPARED WITH THE U.S. AVERAGE, 1950-1967[9]*

	7 Highest States	U.S. Average
Background millirads/year†	210	130
All malignancies	126.3	149.5
Leukemia	7.03	7.13
Breast cancer	21.5	25.3
Lung cancer	14.5	20.4
Thyroid cancer	0.055	0.057
Malignancies, age 0-9	8.11	8.54

*Rates are per 100,000 population per year.
†Background rates are uncorrected for shielding provided by buildings and for reduction by body absorption.

TABLE 5

BACKGROUND RADIATION STATISTICS

Dose: 0.1 rad/year = 100 millirads/year = 2 millirads/week = .01 millirads/hour
Radiation Flux: about 1 million photons per minute arriving at body surface.
Ionizations: 400,000 per minute per gram of body tissue.
10 per year on the average in each of about 10^{15} body cells.

following the establishment of the State of Israel. All of the children developing thyroid cancer were of Asian or African origin and their previous history of x-ray treatment was unknown. In addition, any omission of proper head and neck shielding during the treatment would have greatly increased the dose. The development of thyroid cancer may be secondary to irradiation of the pituitary gland at doses on the order of 50 rads. A recent study,[13] however, of thyroid cancer induced by localized x-ray treatment of rats has shown that the incidence was similar with and without pituitary irradiation. There is evidence[5] that females of Jewish extraction are peculiarly susceptible to thyroid cancer, radiation-induced and otherwise. Furthermore, whereas in other studies of thyroid cancer following irradiation at high doses benign nodules are three times more frequent than malignancies, this ratio was reversed in the Modan series—more malignancies than benign nodules.[11a] This suggests possible misdiagnosis. Finally, in a smaller U.S. study of ringworm treated by radiation[14] no cases of thyroid cancer were found, whereas the Modan results would predict two cases.

In addition to these points, there is the recent finding in Sweden (Table 6) that the diagnostic use of iodine-131 yielding thyroid doses in the range 50 to 150 rads has *not* increased the thyroid cancer incidence, either in older persons or in persons younger than 20 years.[15] The follow-up time is similar in the Israeli and Swedish studies. It may be that the great difference in the dose-rate (millirads/hour) in the two situations may be responsible for the disagreement between their results. In view of the above uncertainties, the Modan study, although suggestive of thyroid cancer induction by a few rads of x-ray, cannot be considered conclusive or as proving that the risk is proportional to the radiation dose.

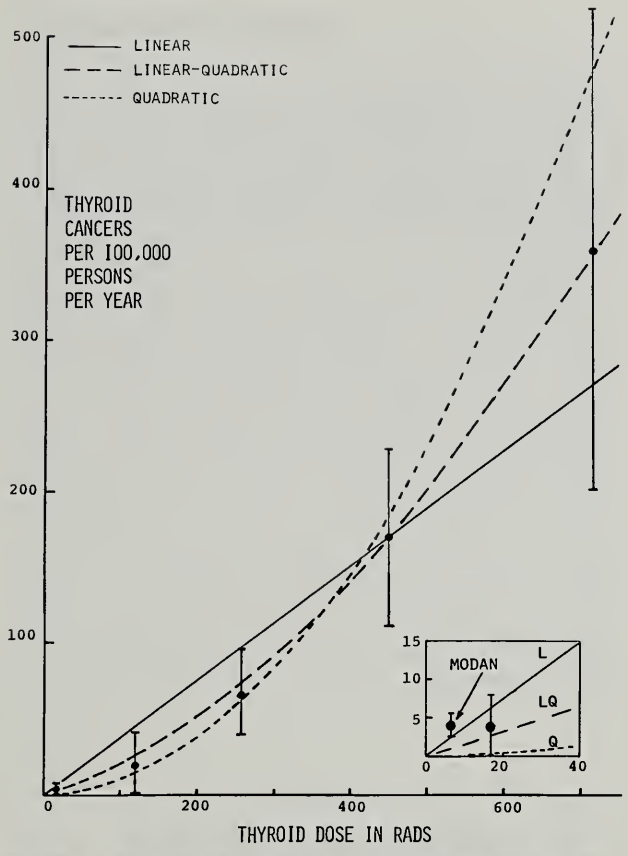


Figure 4. Dose-response curves for thyroid cancer after childhood x-ray therapy to upper chest. (Data from Hempelmann et al.[5]) Error bars are one standard error. The insert magnifies the relationships from 0 to 40 rads and shows the point at 7 rads deduced from Modan et al.[11] (Reproduced from Webster[10] by permission of the *American Journal of Roentgenology.*)

TABLE 6

THYROID CANCER FROM LOW RADIATION DOSES—SUMMARIES OF TWO STUDIES USING EXTERNAL AND INTERNAL RADIATION OF THE THYROID GLAND AT DIFFERENT DOSE RATES

	Modan Study[11] Ringworm Treatment	Holm Study[15] Thyroid Function Test	
Radiation type	X-rays	Iodine-131	
Location	Israel	Sweden	
No. Patients	10,902	9,629	494
Age range, years	1-15	20-75	<20
Mean dose, rads	7.5	58	159
Dose rate millirads/hour	100,000	200	500
Mean follow-up, years	17.5	18	18
Expected cancer cases	2	8.3	0
Observed cancer cases	10	8	0
Excess	8	0	0
Predicted excess*[4]	6	56.5	8.0

*For 30-year follow-up.

The effect of dose rate (speed of radiation delivery) is relevant to several of the low-level radiation problems which beset us. Most, if not all, of the radiation epidemiological studies of repute have involved the rapid delivery of the radiation. Table 7 illustrates the very high dose-rates for the Japanese A-bomb survivors, and for patients receiving either therapeutic radiation or diagnostic x-ray examinations. On the other hand, radiation received occupationally, or from diagnostic nuclear medicine (as with iodine-131), or from background, is received at dose-rates lower by several orders of magnitude. The results of the Swedish I-131 study, therefore, suggest much

lower hazards in these latter situations than would be predicted from the major hazards in these latter situations than would be predicted from the major radiation-cancer studies, and possibly a threshold dose, below which there is no increase in cancer.

The Stewart-type studies of the association between childhood cancer and prior fetal irradiation have often been interpreted as showing that such irradiation during gestation increases the risk of childhood cancer by about 50%. This conclusion provides the underpinning for the general policy of highly selective x-ray examination of pregnant or potentially pregnant women and, to some extent, the evacuation of pregnant women from the vicinity of Three Mile Island. Yet the epidemiologic basis for such policies is tenuous. Table 8 gives the details of the study by Stewart and Kneale.[12] Over 7,000 children known to have died before age 10 with cancer were matched for birthrank, social class, age of mother, region of residence, etc., with an equal number of living control children. The number of children in each group who had been x-rayed in utero was determined. Among the dead children about 14% were x-rayed and among the living controls only 10%. From this difference it was concluded that the relative cancer risk conferred by the x-ray examination (dose to the fetus of the order of 1 rad) was about 1.5. Notice that this was a case/control study, not a cohort study in which one group of children was irradiated while a matched control group was not irradiated, the two groups being subsequently followed to determine cancer incidence. The main question in the Stewart study is the degree of difference between the mothers of the dead children and of the control children which may have affected the proportion of each

TABLE 7

RANGE OF RADIATION DOSE RATES PRODUCED BY VARIOUS SOURCES

	Millirads/Hour
HIGH	
A-bomb	$>10^9$
X-ray treatments	10^5-10^6
X-ray diagnosis	10^6
Radium therapy	10^4-10^5
LOW	
Nuclear medical diagnosis	10-100
Occupational exposure	1-50
Background	0.01-0.1

TABLE 8

CHILDHOOD MALIGNANCY FOLLOWING PRENATAL X-RADIATION*

Period	1943-1965
No. of childhood cancer cases (0-10 years)	7,649
No. x-rayed in utero	1,141
No. of matched controls, without cancer	7,649
No. x-rayed in utero	774
Case/control ratio	1.47
No. of films per examination	1 to 5+
Mean fetal dose per film, rad	0.46 (1945) to 0.20 (1963)
Conclusions	
Relative cancer risk	1.56
Excess cancer deaths per million per rad	572
Range	300-800

*Data from Stewart and Kneale.[12]

TABLE 9

DIFFERENCES BETWEEN CONTROL AND CASE POPULATION IN THE STEWART STUDIES OF CHILDHOOD CANCER AND FETAL RADIATION*

Characteristic	Percentage Found in Controls	Cases
From two highest social classes	17.0	18.9
At least one illness during pregnancy	30.9	35.4
First-born child	32.5	37.7
Mother less than 25 or greater than 34	41.7	44.6
Previous abortion or stillbirth	19.8	23.2
Mother smokes	43.8	47.8
Grandparents died of malignancy	14.1	17.1
Non-infectious illness of child	21.9	32.6
Congenital defects in child	3.5	5.8
Mother x-rayed before marriage	22.8	27.8
Probability of cancer among siblings	0.0007	0.0018

*From Totter and MacPherson.[16]

TABLE 10

CHILDHOOD CANCER MORTALITY FOLLOWING RADIATION EXPOSURE IN UTERO IN JAPANESE A-BOMBING*

No. of children exposed in utero	1,292
No. exposed to less than 500 rads air dose	1,250
Estimated mean fetal dose (50% of air dose)	14 rads
During first ten years of life, observed cancer deaths	1
Based on Japanese national statistics—expected	0.75
Excess predicted by Stewart and Kneale	10
Excess predicted by S-K minimum risk	5.25
Statistical probability of observing one death if true rate is six deaths	0.015

*Data from Jablon and Kato.[17]

group which received abdominal x-ray examination. A recent analysis of the Stewart data by Totter and MacPherson[16] (Table 9) points to significant differences between the two groups which could potentially account for the small difference in x-ray frequency. The reasons for doubting the conclusions of the Stewart study, however, go beyond the study itself. The children of the Japanese A-bomb survivors who were in utero at the time of the bombing have been followed by Jablon and Kato[17] (Table 10). Of 1,250 children who received an average fetal dose of about 14 rads (probably higher with the recent revision of A-bomb doses)[18] only one died from cancer in the first ten years of life in comparison with 0.75 expected. Yet the prediction of the Stewart study would be between 5 and 14 cancer deaths—clearly quite incompatible with the Japanese findings. Furthermore, as recently concluded in the National Academy of Sciences' BEIR Report,[4] animal studies do not generally support the idea that the fetus is more susceptible to radiation-induced cancer than the adult. Stewart's conclusions would suggest a factor of 5 greater sensitivity. It is again concluded that the evidence for cancer induction at 1 rad is inadequate for a firm conclusion.

If there are no adequate low-dose studies, the only avenue to estimating low-dose risks (if we adopt the conservative position that there may be no threshold) is to extrapolate the well-defined high-dose data according to an assumed mathematical model. Such models are derived from the general body of radiobiologic findings. Three models typify the range of models as shown in Fig. 5. These are the linear (proportional to dose extrapolation), the quadratic (proportional to dose squared), and the linear-quadratic (linear at low doses changing to a square-law at high doses). The model selected (especially the square-law model) will have a significant impact on the estimate of risk at the 1 rad level; typically the risk *estimated* with a square-law model will be a factor of at least 100 less than that based on a linear model. Attempts to fit *low-dose* epidemiologic data (e.g., below 100 rads) to these models do not indicate that one model fits appreciably better than the others. One example of such curve fitting is shown in Fig. 4 in connection with thyroid cancer.[5,10]

Several radiobiologic areas can provide guidance on the selection of an appropriate dose-response model. One is the induction by radiation of chromosome damage. Fig. 6 shows diagrammatically the effects that can be readily measured—ring formation and dicentric formation due to misrepair of broken chromosomes. Fig. 7 shows that the relationship of dicentric frequency in an irradiated culture of human lymphocytes is not linear with dose but rather follows a linear-quadratic.[19] Another guide to the appropriate

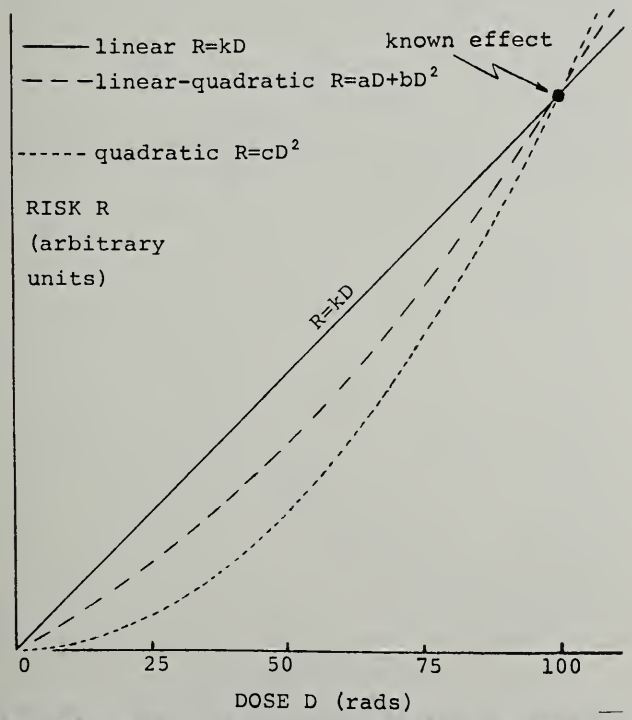


Figure 5. Models for prediction of low-dose effects. In these examples it is assumed that a precisely known risk is established at 100 rads and that interpolation between 100 rads and 0 rad may follow linear, linear-quadratic or quadratic relationships shown analytically at the top of the diagram. (Adapted from Webster.[10])

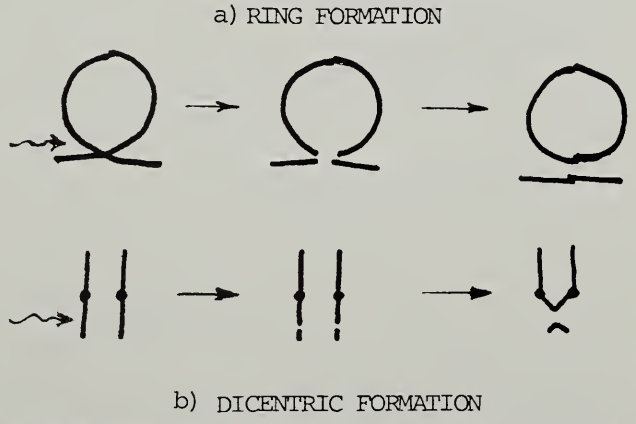


Figure 6. Typical forms of chromosome damage produced (a) by the misrepair of two breaks in a single chromosome (upper diagram) resulting in the production of a ring plus a fragment; and (b) by the misrepair of single breaks in two adjacent chromosomes (lower diagram) resulting in the production of a dicentric plus a fragment. (Adapted from Upton.[1])

model is afforded by experimental data on transformation of cells to a malignant state by radiation. Fig. 8 gives one example of this from the work of Little[20] at the Harvard School of Public Health. For single x-ray exposures the dose response curve again is linear-quadratic in shape. For these and other reasons the 1980 BEIR Report from the National Academy of Sciences "preferred" the linear-quadratic model for risk estimation following whole-body irradiation by x-rays or gamma rays. A good example is provided by Fig. 9 where the Nagasaki leukemia data[21] are fitted to all three models—the linear-quadratic was selected as best representing the low-level risk; namely, one excess leukemia case per year in 1 million exposed persons following 1 rad of whole-body dose, and 25 cases per million over a population life span.

After the BEIR Report was published in 1980, Lawrence-Livermore National Laboratory stimulated urgent revision of the radiation dose distribution in Hiroshima and Nagasaki as a function of distance from the center of the explosion.[18] In the LLNL revision the Nagasaki gamma ray doses were slightly reduced (thus slightly increasing the risk per rad), but in Hiroshima the gamma ray doses were increased by factors ranging from 1.5 in the high-dose areas to about 4 in the low-dose areas. The neutron doses in Hiroshima were reduced almost to the point of insignificance. Preliminary review of the effect of this reevaluation on risk estimates has caused some observers to suggest that the BEIR Committee risk estimates should be greatly increased. In my

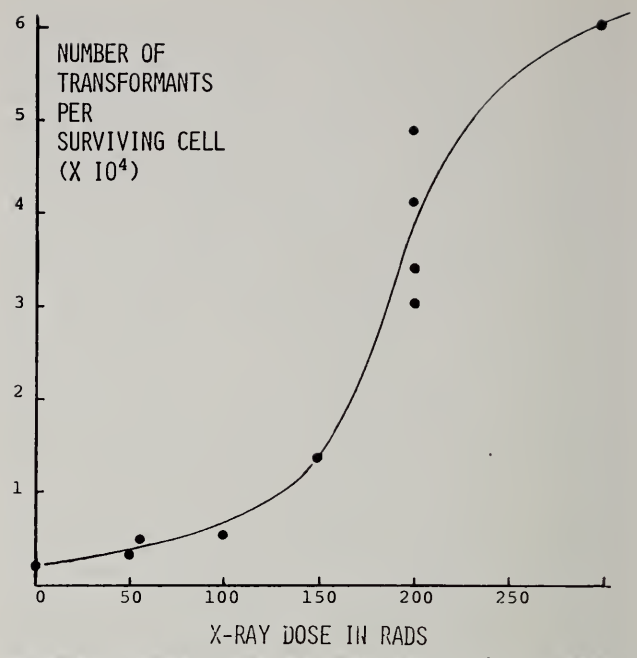


Figure 8. Incidence of malignant transformation in C3H mouse embryo cell cultures after x-ray exposure in vitro. (The data of Terzaghi and Little[20] have been replotted on linear coordinates.)

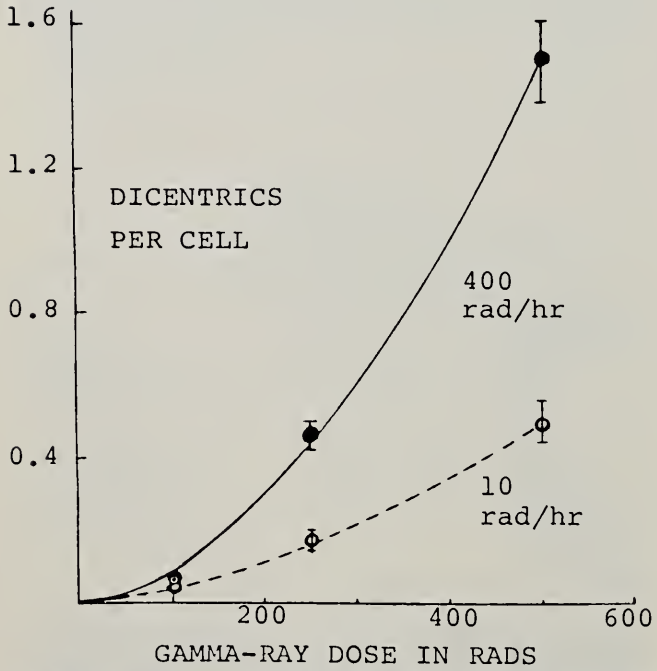


Figure 7. Frequency of dicentrics observed in human lymphocyte cultures after exposure to gamma radiation at dose rates of 10 rads/hour and 400 rads/hour. (Reproduced from Webster[10] by permission of the *American Journal of Roentgenology.*)

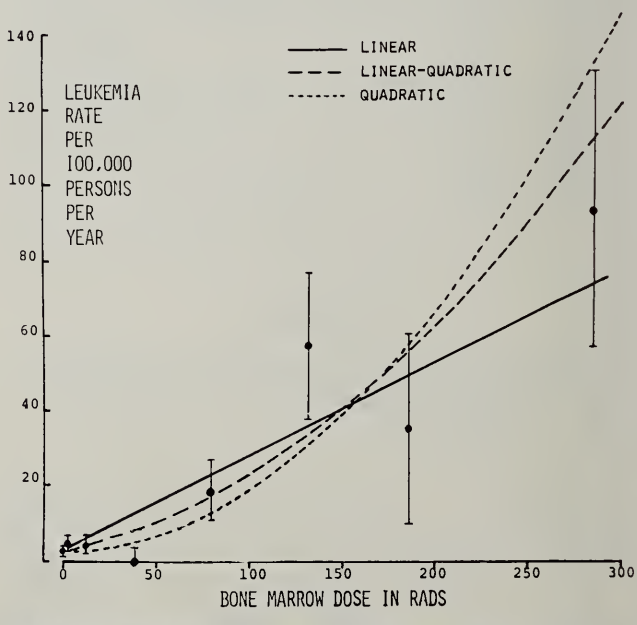


Figure 9. Dose-response curves for leukemia incidence 1950-1971 in Nagasaki A-bomb survivors. Age-adjusted rates are shown with standard errors. The curves are fitted to the data points according to the linear, linear-quadratic and quadratic models (see Fig. 5). (Reproduced from Webster[10] by permission of the *American Journal of Roentgenology.*)

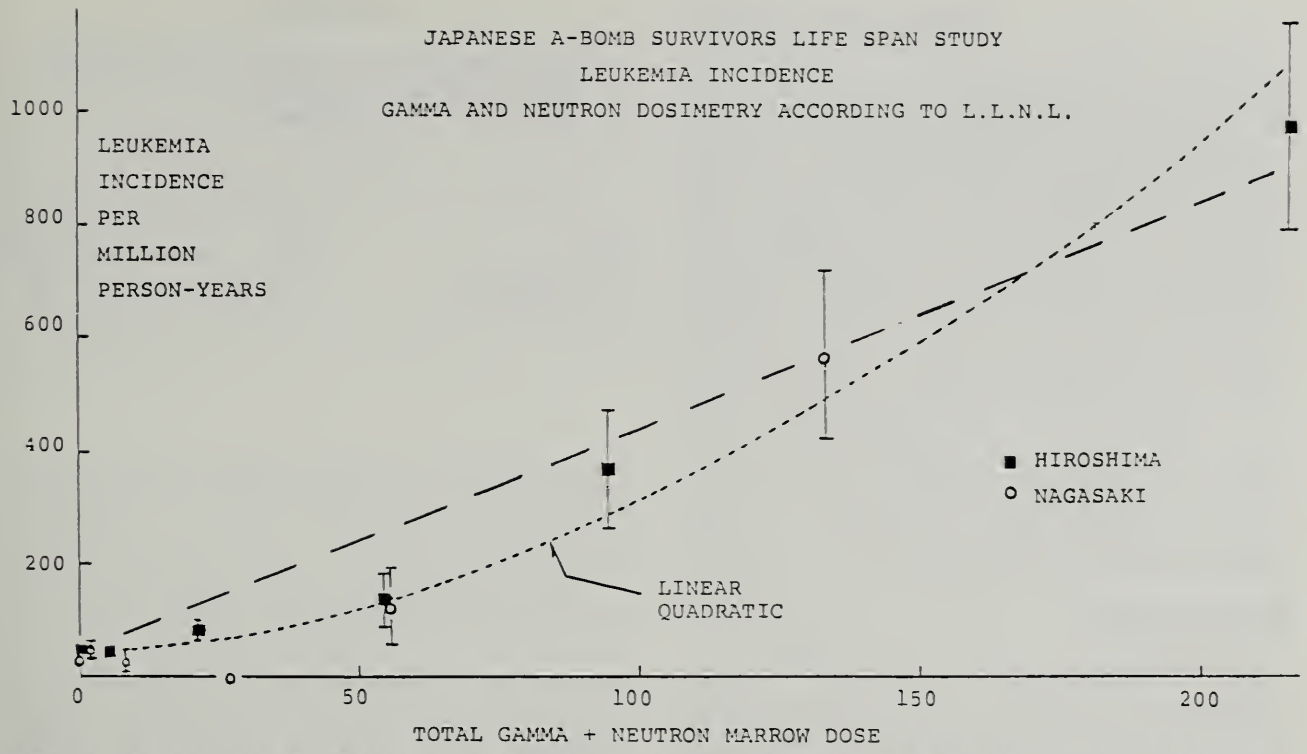


Figure 10. Leukemia incidence in Japanese A-bomb survivors Life Span Study, Hiroshima and Nagasaki 1950-1971 using dosimetry revised according to Loewe and Mendelsohn,[18] Lawrence Livermore National Laboratory.[22]

view, however, the new dosimetry will probably increase the risk estimates only slightly if at all (by perhaps 30%). For example, Fig. 10 shows the leukemia data according to the new dosimetry for both Hiroshima and Nagasaki.[18,22] The data points fit well on a single curve—specifically, a linear-quadratic relation showing a lesser risk per rad at doses below 50 rads compared with high doses above 100 rads. The low-dose risk estimate is very similar to that of the BEIR Report quoted above.

It is generally held[2-4] that the total risk from fatal cancer from whole-body radiation is four or five times the leukemia risk. On this basis the total cancer risk, based on the leukemia risk, is about 100 extra deaths per million per rad, expressed during the remaining life span of individuals following irradiation. The normal mortality from cancer is today about 170,000 per million (i.e. about one in six persons), so that on this estimate 1 rad would increase the cancer risk by less than 0.1% of the normal risk. It should be noted that solid cancers as distinct from leukemia will have a latent period before expression—in the range 10 to 30 years or longer. This implies that the cancer incidence in the Japanese A-bomb survivors, who have now been followed about 33 years since the bombing, may be expected to increase somewhat. The youngest age group at the time of the bombing has shown little or no increase in many types of cancer to date even after this long time lapse, as illustrated in Fig. 11, which shows lung cancer by age group for the

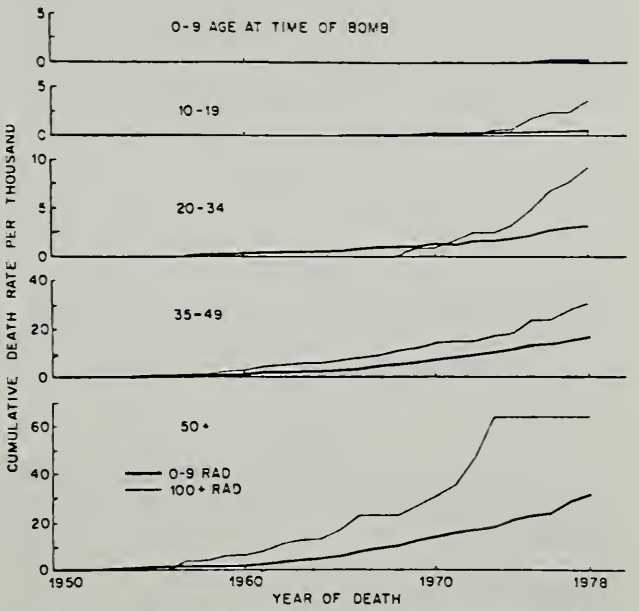


Figure 11. Cumulative death rates 1950-1978 from lung cancer per 1,000 atomic-bomb survivors by age group at the time of the bombing. Doses greater than 100 rads are compared with doses less than 10 rads. (Reproduced from Kato et al[23] by permission of the authors and Academic Press, Inc.)

zero dose (control) population versus the population who received more than 100 rads.[23]

Another type of radiation hazard on which the Japanese experience casts some light is the cancer risk from fallout and residual radiation following the explosions. This has relevance to current concerns that military personnel witnessing A-bomb tests in Nevada in the 1950s, and residents of southern Utah subjected to low-level radiation from fallout may have developed cancer as a consequence of the radiation. Data published this year[24] on the Japanese who entered Hiroshima and Nagasaki within the first few days after the bombing show no evidence of excess cancer after long follow-up as shown in Table 11.

Genetic Effects

The estimation of genetic risks in human populations is more difficult than cancer risk estimation, since there are *no* human data available! That is, a meaningful increase in human genetically based disease as a result of radiation exposure has yet to be demonstrated. Consequently, risk estimates[2-4] are based primarily on the results of radiation experiments with very large mouse colonies—large because the incidence of visible mutations in the offspring of irradiated mice is very low, of the order 10^{-7} probability (1 in 10 million) per genetic locus following 1 rad of acute x-ray dose. It is reassuring that experiments in female mice have shown that the probability of mutation drops to the normal spontaneous rate for a dose rate of 500 millirads/hour or less (which is high for occupational exposure), so that female radiation workers would seem to be removed from genetic risk. The 1980 BEIR Report[4] places the radiation dose necessary to double the incidence of spontaneous mutations at between 50 and 250 rads based on the mouse (Table 12). In 1981, however, Schull, Otake and Neel[25] reported the results of a 34-year follow-up study of the F_1 offspring of the Japanese A-bomb survivors. They studied the following four indices of genetic damage: untoward pregnancy outcomes (stillbirth, congenital defect, early infant death), survival of live-born infants, frequency of children with sex chromosome aneuploidy, and alterations of specific proteins via electrophoretic variant. None of these indices was *significantly* different from normal values, although the observed effects were all in the direction consistent with genetic change. A best estimate of the doubling dose for low dose, low dose-rate radiation was made for the first three indicators, namely 468 rads (Table 12). On this finding, genetic effects may be four times lower than previously estimated by national and international study groups. In terms of serious hereditary illnesses in irradiated populations, the BEIR Committee estimated 5 to 75 such cases in 1 million children born of parents who received 1 rad of dose—a risk lower than that of the small cancer risk (Table 13). Compared with the normal risk that a child will be born with a serious genetic defect, the estimated additional risk from parental dose of 1 rad is more than 1,000 times smaller.

TABLE 11

OBSERVED VERSUS EXPECTED DEATHS FROM LEUKEMIA AND OTHER CANCER AMONG THE EARLY ENTRANTS INTO HIROSHIMA AND NAGASAKI THROUGH 1978*

	Deaths Observed	Deaths Expected†	S.M.R.‡
Hiroshima, 1954-1978			
Leukemia	4	4.36	0.917
Other cancer	231	59	0.892
Nagasaki, 1950-1978			
Leukemia	2	0.93	2.153
Other cancer	45	48	0.939

*Data from Kato et al.[24]
†Based on all-Japan death rates.
‡Standardized mortality ratio.

TABLE 12

ESTIMATES OF DOSE TO DOUBLE THE SPONTANEOUS MUTATION RATE IN MAN FOR CHRONIC RADIATION EXPOSURE

	Basis	Rads
BEIR III[4]	mouse	50-250
ICRP[2]	mouse	100
Schull, Otake, Neel[25]	A-bomb survivors	468

Developmental Defects Following Fetal Irradiation

This review would not be complete without a brief discussion of the risks of developmental anomalies and functional impairment appearing in a child who has been irradiated in utero. The initiation of these risks is largely concentrated in

TABLE 13

ESTIMATED GENETIC EFFECTS OF AN AVERAGE EXPOSURE TO A HUMAN POPULATION OF 1 REM PER 30-YEAR GENERATION*

	Serious Genetic Disorders Per Million Live-Born Offspring
Current incidence without radiation	107,000
With 1 rem/generation	
First generation	5-75 extra
Equilibrium	60-1,100 extra

*Data from BEIR III 1980.[4]

the period of organogenesis 14 to 50 days post-conception. However, in both human and animal populations, there are no reliable observations of the occurrence of these gross effects below 10 rads. These effects are usually considered to result from multicellular damage, which should follow a less-than-linear relationship to dose. For example, if the probability of damage to a single cell is proportional to dose, the joint probability of damage to two contiguous cells will be proportional to the dose squared; that is, the risk will follow the lowest (quadratic) curve illustrated in Fig. 5. The lowest dose data on human developmental defects are provided by the children who were irradiated in utero during the Japanese A-bombing, and showed an increased incidence of microcephaly. The 1980 BEIR Report[4] concluded that in Hiroshima a significant excess of microcephaly was induced by fetal doses as low as 5.7 rads of gamma rays plus neutrons, delivered between weeks 6 and 11 of gestation. The revised dosimetry[18] increases this dose to about 12 rads.[22] The existence of an elevated risk at lower doses was not demonstrated, but cannot be excluded.

Conclusions

In summary, I emphasize the following points. There is no incontrovertible direct evidence that cancer or genetic or developmental defects can be induced in man or other mammal by a few rads of radiation. On the other hand, it appears unlikely that a threshold dose for any of these harmful effects will be demonstrated, if only because of statistical limitations in human observations. Radiobiologic fundamentals suggest it is prudent to assume that these effects have some very small probability even down to the lowest doses. On the basis of conservative extrapolations from observations made at moderate and high doses, the lifetime cancer risk is estimated authoritatively as about 1 in 10,000 for 1 rad to the whole body (less for partial body doses as in medical exposures), and a risk of about 2 in 10,000 of incurring a *case* of cancer per rad. The claimed greater sensitivity of the fetus to subsequent cancer induction following irradiation cannot be regarded as established. The risk of genetic disability in the offspring of irradiated parents is estimated to be considerably smaller than the cancer risk and at least 1,000 times smaller than the normal risk of birth with a genetic defect, per rad of gonadal irradiation received by the parents.

Finally, as a result of this discussion, conclusions must be presented regarding two current problems: (1) the claim noted at the beginning of this paper that diagnostic radiologic procedures are causing large numbers of unnecessary deaths in the population, and (2) the response of the regulatory agencies to the current public apprehension. With regard to the first problem, diagnostic x-ray procedures produce a per capita radiation dose in the whole population estimated at about 77 millirads/year—essentially the same as the dose contributed by background radiation.[4(p66)] The effects of this dose, if any, have been judged by the expert committees[2-4] to be too small to measure, so that *any* number of deaths attributed to this dose are entirely hypothetical, and in the view of these committees far below the estimate of Dr. Gofman. The second problem is similar in nature. Misplaced concern is manifesting itself over the smallest radiation doses—the Nuclear Regulatory Commission is currently proposing 1 millirad as the dose which should cause no concern (the so-called *de minimis* dose). The logical conclusion of such a policy would be to alert the entire population of Colorado and the other mountain states, and all persons who travel by air, to the significant hazard presumed to stem from the increase in background radiation (Table 14). But we have seen

TABLE 14

EXAMPLES OF SMALL INCREASES IN RADIATION DOSE RECEIVED WITHOUT APPARENT CONCERN IN OUR SOCIETY

	Millirads
One round trip flight Boston to Los Angeles	5
Moving to Colorado from the East Coast for one year	50
Increased cosmic radiation to flight crew per year	150

that any potential hazard from such radiation levels is so small as to be undetectable. A more sensible policy would seem to be to ignore all doses smaller than 50 or even 100 millirads/year. Concern over them is wasteful of our social energy.

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APRIL 1984

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	NOTES				

TMA 149TH ANNUAL MEETING
Hyatt Regency Hotel—Knoxville

Special Item

The Changing Health Care Environment

S. R. MAXEINER, JR., M.D.

Your invitation to me to speak to you about our changing environment in health care recognizes the position of my Hennepin County Medical Society at the advancing edge of the storm front. Whether we are being swept away, or are succeeding in building shelter, remains to be seen. I will tell you of some of the developments in our area, and of some of the lessons learned.

There are many reasons why our metropolitan community of Minneapolis-St. Paul is fertile ground for social and medical change. We have a strong populist sense, and a long liberal political tradition, which I think reached its zenith in the person of Hubert Humphrey. In the 1950s we mobilized community zeal and resources in a mammoth hospital construction program. In the 1970s we found we had too many hospital beds. Aggressive management developed from the effort to support these beds and to develop new, high-tech ancillary facilities. Our medical community, strongly supported by extensive teaching programs, has expanded steadily, and maintains a very high standard of competence. Several large multispecialty clinics were founded, and have prospered. Like many communities of our land, we now face an apparent oversupply of physicians. In an organizational level, we have had a strong and active county medical society which has taken the lead to develop, among other things, a Foundation for Health Care Evaluation to serve as an impartial monitor and evaluator of health care, an IPA Model HMO, and many close working relationships with citizen groups interested in health care.

Dr. Maxeiner is chairman of the board of directors of the Hennepin County Medical Society, Minneapolis.

Read before the Memphis and Shelby County Medical Society, Memphis, May 2, 1983.

Reprint requests to 470 Southdale Medical Bldg., Edina, MN 55435 (Dr. Maxeiner).

The industrial/commercial segment of our community also contributes to our progressiveness. Enlightened business leaders are concerned about the costs their companies incur in providing health care to their employees. Many of these leaders enjoy the autonomy of home-office status. Many have contributed their concern and their leadership through the Citizen's League and the Minnesota Coalition on Health Care Costs. Add in other citizen groups like the Council on Community Hospitals, the Physician Metro Task Force, the Senior Federation, the Metropolitan Health Board, and the presence in Minneapolis of nationally oriented health planners and tank-thinkers. When these ingredients are all stirred together, they make a bubbly cauldron.

As you well know, the heat under this cookpot is supplied by the way people feel about the costs of health care. Although the reasons for these costs are not our subject here, let us just note that major cost increases are occurring because of new technology (which no one wants to do without), and because of the postponement of death (which coming sooner would effectively prevent further expenses).

So, out of this community cauldron simmering over the economic fires, what concoctions come forth?

First of all, the traditional, fee-for-service practitioner has not disappeared. Even a year ago, he seemed unchanged and unchanging, autonomous and individual. He often ignored the storm clouds around him. He had *his* patients, and *his* hospital, and *his* way of doing things. Today he seems different. He may have empty spots in his appointment book, and he may have some doubts about the future. Look what he is dealing with. He submits forms to several different insur-

ance companies, especially the Blues and indemnity plans. His fees for some patients may be partially disallowed by third parties. His office practice is measured for costs per call and costs per year. When he wants to admit a patient to a hospital he may first need authorization from the insurance carrier. He may be told that the service he plans can be done quite nicely on an outpatient basis. If he violates any of the rules, he may find his patient disqualified for benefits. The most remarkable change of all is that he sees all of these restraints and strictures, which he railed at a year or so ago, as his best friend for the preservation of his way of life.

Another product of our cauldron is the Health Maintenance Organization (HMO). The HMO is a risk-taking entity that collects premium income from its prepaid subscribers and undertakes to provide all the health care services they need out of that pool of money. If the HMO is unlucky enough to have a few disasters, it needs to be far-sighted enough to have reinsurance. The advantage of large numbers of subscribers is easy to see, so that big hazards can be leveled off in broad-based averages.

HMOs negotiate rates and terms with hospitals and pharmacies. The terms can be anything legal within an entrepreneurial framework, and may be difficult for outsiders to learn about, but known or unknown, they will influence the relationships of these facilities to all physicians and all patients. Cost-shifting can be important here as it is with the Medicare system.

Physician services must be provided by the HMO, and various ways to do this are found. The primary care physician may be paid by fee-for-service, or he may contract to provide all needed care, great or small, for a fixed annual fee per patient. He may even be employed full time by the HMO, seeing no patients outside the plan, and receiving wages and benefits. Secondary care may be provided by full-time employees or by outside consultants. Less frequently utilized specialties and superspecialties will usually require outside consultants charging fee-for-service. Their rates may be negotiated in advance, before they are asked to work for the HMO. The advantage is obvious for a plan to have its own organized medical staff, with centralized communications, policies, and management disciplines. This description fits the multispecialty clinic. It is entirely possible for a traditional, fee-for-service, multispecialty clinic to serve an HMO plan as well. We have two examples of that relationship in Minneapolis.

Any of these payment arrangements that are *not* fee-for-service give immediate incentives to the physician to control costs by limiting service. Underutilization, or withholding of needed services, is an obvious danger. We have not seen evidence of it in our city to date.

What has happened in the Twin Cities as HMOs emerge from the cauldron? *Plenty*. In 1972 we had one HMO serving 3% of our population. In 1983 we have seven, serving 500,000 people or 25% of our population. Most HMO marketing is done through major employers. In these markets, the HMOs have achieved nearly 80% penetration. New programs are now selling HMOs to Medicare patients, and they, too, are flocking in and signing up. These plans are well advertised, and offer all the care you want for a fixed cost—no surprises. People like them.

Another creature out of the cauldron is really one of the seven HMOs, but is unique. It is an IPA model of HMO, or Independent Physicians' Association. It was formed by and from the Hennepin County Medical Society, under the name of Physicians' Health Plan, or PHP. It functions as an HMO, but has a huge roster of independent participating physicians representing the large majority of private-practice HCMS members. Physicians are paid by fee-for-service, and totally by the Plan. No charges are made to the patient.

PHP merits some discussion because of the steps in its evaluation. The Plan was started in 1975. It sold contracts at a premium slightly higher than those of competing HMOs (and still does). But the other HMOs were paying for 400 hospital days per 1,000 subscribers per year. PHP faced claims exceeding 800 hospital days per 1,000 per year, as well as the physician fees to go with them. *Red Ink*. Answer: utilization control. Management imposes controls on physicians. Today PHP contracts require certain procedures to be done out of hospital, surgical admissions on the morning of surgery, pre-authorization for all elective hospital admissions, and concurrent review of hospitalized patients relative to reason for admission, length of stay, discharge planning, and utilization of all treatment modalities. Special controls are exercised over mental health services, chemical dependency treatment, cosmetic surgery, and pharmacy. These controls are imposed by the Plan on the physicians, and have evoked some outrage and much hostility. But last

year, PHP claims were in the range of 400 hospital days per 1,000 subscribers. *No Red Ink.*

In addition, the Plan has devised ways to make the mechanism of physician reimbursement function as an incentive for cost effectiveness. Fees are reviewed, and possibly reduced to conform to an unpublished maximum schedule. Of the approved fees, 20% are held back to year-end. Physicians risk losing this 20%, for it will be used to offset any operating deficits. In recent years, with utilization under control and the Plan in the black, these funds have been appropriately distributed to the waiting physicians.

Now there is a new wrinkle. PHP maintains utilization records for the performance of individual physicians, both in hospital and in office. High costs per hospital procedure, or high cost per patient office visit, or high aggregate cost per patient per year will trigger a review of the individual physician's practices. Unexplained high costs may deprive that individual physician of his share in the 20% withheld. In a few instances, these high-consumption physicians have left the Plan. In most instances they have modified their behavior.

There is a distinct difference in the way these two kinds of HMO affect the communities in which they grow. The IPA model serves patients via independent practitioners who live there anyway. The staff model HMO is more apt to hire its full-time physicians from outside the community and bring them in. To that extent it is effectively reducing the market population for the existing medical community. In that sense, as far as my practice is concerned, 400,000 people have moved out of town.

Will patients sign up for something like this? Will they really give up their own physicians or their freedom to choose a personal physician? The answer is: *YES*, for the dollar. It is common in the Twin Cities for physicians to be asked to deliver to a prepay system medical records of established patients of long standing. Loyalty is a thin buffer. HMOs attract not strangers only.

There is, however, an interesting bias in this—a phenomenon called *adverse selection*. People who are well and expect to stay well look kindly on the chance to put a cap on possible health expenses. They are likely to sign up for HMO coverage. People who are chronically ill and likely to need continuing treatment are more likely to stay with their existing physician relationships. This bias produces a definite added burden to the indemnity insurance carrier, and also to the IPA model HMO, for they draw a greater than random share of the high-risk population.

If someone comes to your town and absorbs 10% or 15% or more of your population, how do you respond? Some ways are illegal, or unprofessional. Another idea is to compete. Join or form a marketing group that will present your services to the public for possible purchase. This is the incentive for physicians to join the next member of the alternative delivery system, the *Preferred Provider Organization*. PPOs are pretty new—so new that even the Twin Cities haven't really got one yet. We know of seven or eight in formation. They vary. Each one will be different in details of management, of sponsorship, of payment mechanisms, and of utilization review and quality control. You have to inspect the terms, and be critical. In general a PPO is a brokerage operation. The central entity may be anybody; it can be for profit, and can be kept rather simple. For a small sprinkle from the cash flow, its function is to bring together the other players.

It attracts *employees* to sign up by offering health care coverage at a favorable cost from a large panel of physicians and hospitals convenient and well-known to prospective patients. Employees also have the option to go outside the panel for their care, but they will incur personal expense as co-payors if they do. The broker attracts *employers* to the plan by offering cost-effective health care, possibly even measurable cost savings. The employer who chooses to be self-insured rather than buy insurance coverage pays only for expenses actually incurred. He is freed from the cash-flow drain of the capitation fees that would be prepaid to an HMO plan. The broker's selling points to the employer-sponsor include the plan's claim to provide effective utilization controls, and the plan's negotiated rates with physicians, pharmacies, and hospitals. Negotiated rates are agreed on in the contracts of participation, and are likely to be discounted rates. Despite those discounts, the broker attracts *physicians and other providers* into the plan by offering an increase in patient volume and prompt payment of claims.

Why are the lucky providers described as "Preferred?" First, the plan gives patients a dollar incentive to select these designated providers rather than others not in the plan. Second, the preferred providers are (or are claimed to be)

more cost effective than others in the community. Third, the plan has negotiated rates with them, usually with some discount.

We have discussed HMOs and PPOs. Let me review some of the differences between them. Remember there are many variables and distinctions may blur. The HMO collects its money by capitation—a flat rate per enrollee—and assumes the risks of adverse claims experience. The PPO collects its money as a fee, a percentage of expenses actually incurred; it assumes no risk. The self-insured employer-sponsor, or an insurance company, bears the risks of adverse claims experience. The HMO pays its physicians by fee, by flat rate, or by salary. The PPO doesn't pay its physicians at all; it just passes along someone else's money, in accordance with a previously negotiated schedule. The HMO actually provides the service, but locks the patient into a "where" and a "when" and a "by whom." The PPO allows the patient to choose both his circumstances of care and his physician; it just reminds the patient that he will pay a whole lot less if he chooses a preferred provider.

These plans, whatever their initials may be, are individual and variable. Examine them critically. Make no assumptions of beneficence toward the physician nor toward the patient. Take not quality for granted. These plans are being developed out of economic pressure. Their creators may not even be aware of the unique values that lie at the heart of the health care system. Physicians need to protect their own economic interest; it is legitimate to do so. But we have also a professional and ethical duty to protect the patient. No one else really can, and some of the others are not dedicated to patient welfare. I am convinced about the primary issue physicians must address in looking at alternate delivery systems. It is vital that this function of assessment and assurance of the quality of care be maintained in physician hands.

Now if a PPO plan or an HMO plan begins to operate, its success will depend on its control of costs. Expensive treatments, extra laboratory tests, unnecessary hospitalization are anathema. The plan has an immediate need to know which physicians are good purchasing agents for health care, and which are high-profile, high-consumption, expensive providers (even if their fees are reasonable). Who is to say which health care costs are high profile and which are essential to good quality of care? Think that over. If you think, as I do, that that is an essential role for physicians to play, be prepared to fight for it, or lose it.

A year ago a PPO was proposed to our community. The broker was an independent corporation, and all ready to go. But the broker asked for approval of the plan by hospital medical staffs. The plan took unto itself the entire authority to measure, monitor, evaluate, and discipline physician performance. An uproar resulted, and the plan was withdrawn.

This abrupt awakening to the "new kid on the block" led our Hennepin County Medical Society to hold several well-attended meetings on PPOs. We developed a series of guidelines for physicians to evaluate PPO proposals. We are enjoined by law from forming a PPO, or from obstructing one, but we felt obliged by our position in the medical community to try to lead the way to some kind of enlightenment. Our guidelines were adapted by the Minnesota Medical Association, and are published in a sporty and expensive brochure.

After all this, we felt good. We had "done something." Subsequent PPO proposals seemed better. At least one proposes to contract its utilization studies and peer review to our Foundation for Health Care Evaluation—a salutary idea. Others may house these functions with their own physicians.

The latest plan came to my desk very recently. The original broker is back. No medical staff approval this time—just you, alone, Doctor, in the solitude of your office. Do you sign this contract to participate, or do you not? Please forward the signed contract together with your signed check covering your assessed entry fee. I asked myself: "Where does the medical authority lie in the plan this time? Does it rest in physician control or in the cash drawer?" I read: "Data on utilization of services for each physician will be collected and evaluated by the broker, who shall have sole discretion. . . ."

So, no battle is ever really won. Eternal vigilance is the price of freedom, and apparently of quality in health care. Life is a process and lessons can be learned along the way.

- *Fertilizer feeds the flowers and the weeds alike.* Nearly universal health care coverage, first dollar coverage, cost-plus hospital reimbursement, and third-party payment to physicians have generated an enormous expansion in health care that is outgrowing its money supply.
- *You can't sweep back the tide with a broom.*

Retrenchment of the health care system is going to happen somehow. Alternative delivery systems, including HMOs, IPAs, PPOs, are just part of the phenomenon. Just wait for DRGs!

- *It's better to light one candle than to curse the darkness.* The county medical society can play an active role in leadership. Members want that nowadays, and respond. Membership should include all kinds of physicians, no matter who pays them, and the society should champion those essential transcendent values that should characterize our profession.

- *Everybody learns to serve the public in a way that also benefits himself.* Physicians are slow to change. Conduct can be modified when the consequences are definitive. Utilization controls must be iron clad; then they can be effective. Payment incentives work.

- *Motherhood and apple pie rank just behind quality of health care in getting lip service.* The truth is that many of the actors in the current scene are willing to throw quality away. To take it for granted could mean to lose it. Assessment and assurance of quality of health care control must be kept in physicians' hands, not because it is their prerogative, but because there is no one else who is trained to make these judgments to the benefit of patients.

- *The hand that holds the dollar writes the rules.* The health care system responds with sensitivity to financial incentives. Patients desert their own physicians to save a dollar. Physicians play by rules that others write for reimbursement. Hospitals will turn inside out over prospective payments. Advertising becomes respectable. The ultimate power lies in federal laws yet to be written.

How good it is that we serve a profession where we need not measure our success only in dollars gained. People need us. Some are even grateful for what we do. We are still permitted to harbor for our profession a vision that transcends the dollar and serves the public trust. I hope we will work and fight for that vision.

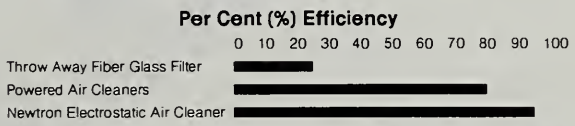
Awake with allergies



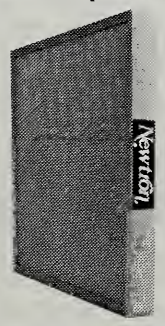
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Access to Care by Medicaid Beneficiaries

Introduction

The Council on Medical Service is continuing its study of various new approaches to maintaining access to needed health care for Medicaid beneficiaries. Such study has become particularly important in the present climate of increased fiscal austerity. It is the Council's opinion that regardless of whether Medicaid becomes federalized, remains a state program with federal dollar participation, or even becomes entirely a state responsibility, the funds available for care of this population group will continue to decline in relation to needs for service over the foreseeable future.

At the 1982 Annual Meeting, the Council's Report G examined the feasibility of one approach to increasing physician participation in the Medicaid program and thus improving access—the use of tax credits or deductions to supplement or replace direct payment to physicians for treatment of Medicaid patients. Exploration of this possibility is continuing in the context of proposals for making Medicaid a federal responsibility. The purpose of the present report is to review other potential or actual responses to the problem of declining health care dollars for this group, including innovative delivery systems and special incentives toward physician participation, and to identify the issues raised by such responses on which the Association may need to take or reaffirm a position.

Reducing Access to Care

It should be recognized at the outset that one obvious response to declining Medicaid dollars would be to *reduce* access to care by Medicaid beneficiaries in one of two ways.

1. Reduce the number of beneficiaries. States—or the federal government if Medicaid becomes a nationally administered program—may elect to reduce the Medicaid caseload by tightening standards of financial eligibility for all four or for selected categories of the needy now covered under the program (aged, blind, disabled, and needy families with dependent children)—in effect by redefining what constitutes financial need. In an earlier report to this House about third party coverage for costly new procedures or technology, (CMS Report B, I-81) the Council attempted to identify which if any criteria in addition to safety, efficacy and professional acceptance should be used in making decisions about such coverage; the House concurred with the Council that any decision to deny coverage for safe and effective procedures solely because of their cost should be made only after full discussion by all groups concerned, including both the medical profession and the public. The Council believes that proposals to restrict financial eligibility for the Medicaid program should receive similar broad-scale discussion, since they too in effect deal with the rationing of care, and further believes that the broad spectrum of groups to be involved in the new AMA program to develop a national health policy may constitute a highly appropriate forum for discussion of this question. In addition, to the degree discussion of this issue continues at the state level, the Council believes it important that state medical societies actively participate and seek input to such deliberations.

2. Reduce the type and/or duration of services paid for. States and/or the federal government may also elect to reduce the duration of payment or eliminate coverage of either the required or optional Medicaid services, for all or selected categories of the needy. (Prior to the enactment of Medicaid in 1965, there were in fact separate assistance programs for the aged, blind, disabled and dependent children, each with its own medical care programs and standards.) In some contrast to decisions concerning financial eligibility, the Council believes that the medical profession has special knowledge and therefore a more direct responsibility for developing recommendations as to the general types, extent and duration of covered services which constitute a minimum level of adequate benefits. Such recommendations will be particularly important if Medicaid becomes a federal program with uniform eligibility and benefit levels. Accordingly, the Council on Medical Service will study this subject further, as the basis for possible future recommendations to the House. The Council would similarly encourage state and local medical societies to continue providing expertise and leadership to the extent that discussion and decisions concerning minimum adequate benefits remain ongoing at the state level.

Maintaining Access

In an effort to constrain costs while providing needed care for the presently defined needy population, a number of states are experimenting with new approaches to delivery or financing of services for this

This is AMA Council on Medical Service Report D, submitted to the House of Delegates at its Interim Meeting in December, 1982. Past House Action: A-82:162-165; I-81:140-144.

group; many of these have been established under provisions of the Budget Reconciliation Act of 1981 (PL 97-35) which allowed states greater flexibility in implementing their Medicaid plans and provided for experimental "waivers" of federal statutes enabling a number of changes in plan operation. Appended to this report as Attachment A is an informational summary of a number of such experimental programs on which the Council has been able to obtain information. The list is by no means exhaustive; in fact, at the time this report was written, the Health Care Financing Administration had just awarded grants for additional demonstration programs in five states.

Generally, these experiments seek to maintain access to needed care for beneficiaries by (1) attempting to reduce presumed inappropriate utilization of services; and/or (2) constraining the cost or charge per unit of service.

1. Reducing Utilization. A number of the experimental programs described in Attachment A exert some control over the beneficiary's access to services, by restricting him to a specified list of physicians, hospitals and/or health plans, or by offering access to covered services only through and by a designated primary care physician who serves as the patient's "case manager"—comparable to the system for regular enrollees in many HMOs or other closed panel plans. Other programs offer the beneficiary a choice between continuing to receive covered services from any provider, and enrolling in a "case-management" or other alternative health program.

If the beneficiary is given the option of either continuing to receive covered services from any provider, or enrolling in an alternative health plan which may carry with it specified obligations concerning the source of care, the Council believes that the principle of acceptable freedom of choice has been preserved, in accord with previous policy adopted by this House. Under this approach, however, there is theoretically no incentive for the beneficiary to choose the most cost-effective mode of care—whichever it may be. For this reason, the Council believes that experimentation with programs which provide the beneficiary with some tangible benefit for selecting the more cost-effective care source should be encouraged—whether this benefit takes the form of coverage for additional services, guaranteed program eligibility for a given time period, or cash rebates to the beneficiary equal to all or part of the cost savings. If the latter incentive is utilized, the Council also believes it is absolutely essential to simultaneously require a minimum adequate level of benefits, so as to avoid the possibility of underinsurance.

While the Council believes that the Medicaid beneficiary should have financial incentives toward prudent choice, just as proposed for other health care consumers, it also strongly believes that the beneficiary should continue to *have* a free choice of his or her source of care, and not merely a selection between different "approved" or "participating" providers. It has been argued that the responsibility for choice of a physician or health care provider properly rests with those who pay for that care (whether directly or through premiums) and that in a publicly financed system of care the responsibility for prudent choice should properly rest with the public agency on behalf of the taxpayer. However, in the great majority of cases the recipient of tax-supported medical care is in that position involuntarily, not by choice, and it would be unfair in the Council's opinion to penalize such an individual for a situation beyond his or her control. To do so would in effect reinforce and perpetuate a two-tiered system of medical care, as well as create a precedent which could ultimately prove detrimental to the overall quality of medical care in this country.

As another approach to cost constraint through reduced utilization, some of the experimental programs utilize or are considering cost sharing (coinsurance, copayment and/or deductibles) by beneficiaries as a means of reducing inappropriate utilization. Such cost sharing could be imposed on a "per-service" basis, at the point of purchase, or could also be implemented through a voucher system, in which the voucher amount would equal the premium cost of the minimum benefit package established for the program. The beneficiary electing a more expensive care option would be responsible for some part of the costs of the individual services or of the premium. As the House is aware, current Association policy supports consumer cost-sharing so long as it is reasonably related to ability to pay and does not act to prevent access to needed care. With this caveat, the Council believes that the cost-sharing concept merits trial with the Medicaid population. However, the Council has serious reservations as to the practicality of this approach for a group which is already living near, at or below the subsistence level. In order to avoid undue financial hardship, the patients' share of premium or service cost would probably have to be nominal—and thus might not even cover the administrative cost of collecting it. For this reason, the Council believes that positive rather than negative financial incentives toward prudent choice may ultimately prove more workable for Medicaid beneficiaries.

Risk-sharing by physicians and health care providers is yet another potential approach to cost constraint through reduced utilization being tried in some Medicaid programs. Until enactment of PL 97-35, states were allowed to sign prepaid risk contracts for serving Medicaid beneficiaries only with federally qualified HMOs. P.L. 97-35 now allows the states to execute such contracts with any public or private "alternative health plan" which can "provide the same services" as those available to Medicaid beneficiaries outside the plan, and can demonstrate financial solvency. As indicated in Attachment A, some medical care foundations or other physician groups are considering or have executed such contracts. In accord with present Association support for neutral public policy, fair market competition and experimentation with all types of delivery systems, the Council believes that other medical care foundations, IPAs and like groups, could appropriately consider the pros and cons of entering similar at-risk arrangements for serving Medicaid beneficiaries on a prepaid capitated basis. The Council also believes it important that organized medicine at the state and local levels attempt to assure the availability of external, professionally directed peer review for services provided under these or any other approaches to serving Medicaid beneficiaries.

Still another experimental approach to more effective utilization/administration of services involves "subcontracting" by the state Medicaid plan with local entities such as a county or metropolitan health department; these local entities then assume responsibility for bringing beneficiaries within a specified area together with physicians and health care providers—whether through enrollment in a prepaid plan or continuation in the fee-for-service delivery system—by contract negotiation with the various plans or sources for care, and by counseling of the beneficiary in choice of care options in terms of cost/coverage tradeoffs. This "health broker" approach is consistent with long-standing Association policy calling for tax-supported personal health services for the needy to be administered by a governmental unit as close to those being served as is consistent with effective, efficient, and economical administration, and merits extensive experimentation in the Council's opinion. The Council also believes that such "broker" systems should explore the feasibility of counseling the beneficiary on (a) appropriate use of *services* once the choice of care option is made—particularly if continued access to all providers is the option chosen—and (b) health habits and disease prevention.

2. Constraining Unit Cost. Also embodied in a number of the experimental approaches to serving Medicaid beneficiaries are efforts to constrain the cost or charge per unit of service. For example, certain programs attempt to facilitate use of more cost-effective care settings by utilizing reimbursement incentives toward greater use of ambulatory or outpatient settings for selected surgical procedures and other services. The Council supports efforts along this line, as consistent with Association policy encouraging balanced third-party coverage of alternative services and settings in the provision of health care.

Another approach to cost constraint is of course payment by programs for physician services on the basis of negotiated fee schedules or through capitation, rather than relating such payment to the prevailing range of actual charges in some way as in the Medicare program. Current AMA policy supports the freedom of a physician to choose the method of payment for his services and the amount of such payment (subject to peer review), to accept or not accept a given patient, and to determine for himself what his relationship with any third-party payor should be (including whether he wishes to enter into "participation" or other contractual agreements), but opposes the unilateral imposition of uniform fee schedules. Within that context, the Council believes that continued experimentation with alternative reimbursement methods is appropriate.

A final and ongoing approach to cost constraint has been the voluntary provision of medical care by physicians without charge or at reduced charge. The partial or total write-off of fees for the financially disadvantaged has been a long-standing tradition of the profession. In its Report G (A-82) the Council encouraged individual physicians to consider further increasing their contribution of services without payment in the current situation of economic hardship. A recent Association poll indicates that this type of activity has increased in areas especially hard hit by unemployment, where county medical societies and other local physician groups have developed programs to donate care and provide referral services for those unable to pay. The development of such programs in other areas was encouraged in a joint statement by AMA and five other national organizations this September.

The Council has also considered whether some type of formal program to recognize such contributions by individual physicians might be appropriate. The Council recognizes that the great majority of physicians who are currently motivated to contribute their services do so irrespective of any formal recognition for their altruism, and that there may be administrative and other drawbacks to be considered in implementing such a program if it becomes unduly bureaucratic. On balance, however, the Council believes that the net effects of such a program would be positive, and that state and local medical societies and their auxiliaries might therefore consider ways in which the voluntary provision of medical care by physicians without charge might be further encouraged and recognized.

Recommendations

Based on its review of this subject to date, the Council on Medical Service recommends:

(1) that state and local medical societies continue to participate actively in their states' discussion and plans for restructuring the Medicaid program, particularly as they may apply to changing benefit levels or eligibility standards;

(2) that state and local societies inform the Council and AMA staff of their involvement in such discussions, and of other new approaches to care of the needy under consideration or trial in their respective states and counties;

(3) that efforts to provide those eligible for Medicaid with appropriate financial and other incentives toward prudent choice and use of health systems be continued and expanded;

(4) that the Association continue to urge that Medicaid beneficiaries be afforded full freedom to choose their source of care;

(5) that medical care foundations, IPAs and other medical practice organizations consider the desirability of contracting with state plans to serve Medicaid beneficiaries through innovative delivery or financing arrangements;

(6) that state and local medical societies attempt to assure the availability of professionally directed peer review, as defined in AMA's "Principles for Voluntary Medical Peer Review," for services provided to all Medicaid beneficiaries, including those served by alternative delivery systems or plans;

(7) that "health broker" systems providing enrollment counseling to Medicaid beneficiaries also consider provision of counseling on appropriate use of services and on health habits and disease prevention; and

(8) that individual physicians be encouraged to consider further increasing their contribution of services without payment in cases of financial hardship.

The Council will continue to review evolving approaches to care of Medicaid beneficiaries, and will report further to the House of Delegates as appropriate.

ATTACHMENT A

Informational Summary
Delivery System Innovations in Medicaid

As states struggle to keep their financially burdened Medicaid programs afloat, many different and innovative approaches are being developed and considered in order to increase, or at least maintain, the current level of access to medical care by the needy in view of the declining availability of health care dollars. Generally, these new approaches attempt to maintain or improve present levels of access to care for beneficiaries by (1) reducing inappropriate utilization of services and increasing physician participation in the Medicaid program; and/or (2) constraining the cost or charge per unit of service.

These innovative delivery systems or experimental "waiver" programs, as defined under the "waiver" provisions of the Medicaid law, seek to combine the two objectives of increasing physician participation and providing more cost-effective care to Medicaid beneficiaries. Four generic types of innovative approaches to the delivery of care are:

- Primary Care Networks—A system of delivery which attempts to use case management principles in conjunction with cost sharing to create a cost-effective health care system for the needy.
- Health Care Broker Systems—An organizational form which contracts with an entity (often a county or local health department) to serve as an intermediary between the state and both the providers and patients. The "broker" fulfills the role of bringing the provider and patient together under the conditions of the contract. As currently defined, the "broker" does not deal with appropriate use of services once the choice of care option is made by the beneficiary.
- General Prepaid Category—A category of plans which attempts to demonstrate that reimbursement on a prepaid capitated basis is the most cost-effective way to deliver high quality care to the needy. These plans usually involve contracts between HMOs and the state.
- Other Proposed Changes to Medicaid—This category of plans proposes modifications to the current state Medicaid programs. These plans usually do not involve restructuring the entire Medicaid program or the accompanying incentives.

Primary Care Networks

In general, a primary care network (PCN) has three characteristics: (1) It consists of primary care physicians dispersed throughout the community in solo or group practices; (2) Patients are enrolled in the PCN and either choose or are assigned to a single primary care physician or entity (such as a clinic); and (3) The network increases the control that the primary care physician has over the total medical care received by the patient. The primary care physician also reviews and approves all care received—this is the concept known as case management. Having selected a primary care practitioner the patient is then "locked in" to that provider as his case manager.

These systems are considered appealing to the states because they curb "doctor shopping" and costly nonemergency visits to hospital emergency rooms and outpatient departments. Visits that are not authorized by the case manager are not paid for by the state. PCNs offer the potential of securing access to health care for Medicaid patients, since the beneficiaries, under this type of system, should no longer have difficulty in locating providers who will accept Medicaid payment.

PCNs are considered simpler to establish than an HMO since they can rely on linking together providers who already participate in the Medicaid program. In addition, HMOs require a formalized organizational format, whereas primary care networks do not. States may also take the "prudent buyer" approach by contracting only with those providers who furnish what the state may consider the "most cost-effective medical care."

Massachusetts Case Management—This was developed by the State Department of Public Health as an attempt to integrate case management principles into the fee-for-service setting, attempting to achieve efficiencies and cost savings similar to the HMO experience. The project was pilot tested in the Boston area. Case managers were selected by competitive bid; two hospital outpatient departments and two community health centers served as the primary practitioner teams or case managers. This experiment involved only recipients of the Aid to Families with Dependent Children (AFDC) program. Once an AFDC family selected a case manager, care could not be paid for unless delivered or approved by the case manager. The contracts between the state and the case managers were fee-for-service reimbursed based on 95% of the projected costs of treating a similar caseload in the fee-for-service sector without case management. The contract did not involve any potential financial loss for the case managers, although case managers could retain 40% of any savings accrued from the difference between what was actually spent and what the state paid.

A significant problem during the first two operational years of this project was an inability to control out-of-plan utilization. Initially the state lacked the computer capability to verify claims and screen out inappropriate (i.e., not referred by case managers) claims from off-site providers. Even after this capability was in place it was difficult to impress on the case manager the importance of documenting all legitimate referrals to off-site providers.

Monterey and Santa Barbara Counties, California—Under a project developed in these counties, primary care networks will be established by the counties to serve the entire Medicaid (not just AFDC) population. The state of California will pay the counties 95% of the projected cost of providing care to a similar population in the fee-for-service setting. The counties will, in turn, assume the financial risk for Medicaid

services. This means that the counties pay the aggregate amount over the 95% state funding, and keep any of the 95% not spent. The primary care physicians will act as case managers, providing primary care and authorizing referrals when necessary. The physicians, through a shared savings mechanism, have incentives to manage care efficiently. The counties plan to develop contracts with hospitals and other secondary providers utilizing periodic prospective block payments. A key provision in these plans is that enrolled beneficiaries have six months guaranteed eligibility for Medicaid services, once enrolled in the PCN, regardless of whether they lose their Medicaid eligibility. The biggest anticipated problem in the administration of these plans is the establishment of required rate-setting.

Medicaid Pilot Project of New Jersey—This project, proposed in 1980, has been funded by HCFA as a case management demonstration project for four years. The project is designed for implementation in two counties, and its goal is to keep Medicaid patients out of the emergency rooms by encouraging them to go to physician offices for primary care. In this way, it is hoped that patient activity and care could be controlled to lessen the total cost. If a Medicaid patient chooses to participate in this program, which is designed to be voluntary, the patient will be assigned to a single primary care physician and a single pharmacy. Physicians in the program will be reimbursed their usual and customary fees or on a mutually agreed-upon schedule. The physician will agree by contract to become the primary physician for the client and the client's family. Once the client has chosen this care option, he will be locked-in to this arrangement for a length of time not specified in the plan. If this project is successful, it is anticipated that it will be used as a model for the rest of the state of New Jersey.

Physician's Primary Sponsor Plan of Michigan—This plan, jointly prepared by the Michigan State Medical Society and the Michigan Association of Osteopathic Physicians and Surgeons, was prepared as a response to overutilization, particularly with prescription drugs. A major objective of the plan is to encourage physician participation in Medicaid as well as to control costs. The state of Michigan has received waivers for the development of primary care networks. As an enrollee in such a network the patient selects a participating primary sponsor and then cannot be eligible for care outside of the system. Primary sponsors (also known as case managers or primary providers) are broadly defined as physicians, group practices, and/or clinics. Medicaid eligibles choose a primary sponsor who will initiate or approve all subsequent health care services. Patients are locked-in to these primary sponsors except under special circumstances.

Primary care sponsors are paid a flat monthly case management fee per eligible. Each primary sponsor visit by the patient will be paid on a fee-for-service basis structured to encourage utilization in the most cost-effective setting. Incentives to use more cost-effective settings in service delivery (e.g., ambulatory setting instead of inpatient) include more equitable reimbursement for ambulatory services and selected surgical procedures when performed in the office setting. Any savings realized by this program through decreased doctor shopping and reduced hospital and emergency room usage are to be shared with the physician through increases in the Medicaid reimbursement screens.

Amendments to the California Medicaid Law—Amendments, made in August 1982, to the California Medicaid law (Medi-Cal) make it possible, subject to necessary federal waivers, for implementation of a full range of alternatives to the fee-for-service health care delivery system. The result is authorization for a Medicaid delivery system similar to that being implemented in Arizona. The amendments created an entity known as the California Medical Assistance Commission for the purpose of contracting with health care delivery systems for provision of health care services to recipients under the Medi-Cal program. Beginning on July 1, 1983, the Commission is responsible for securing contracts for services in the following areas: (1) the provision of services through a capitation methodology, including but not limited to HMOs, organized county health systems, insurance companies, and independent practice associations; (2) hospital inpatient or hospital outpatient services; (3) pilot projects to test the cost effectiveness of delivering health care benefits through private insurance companies or HMOs; and (4) health care projects providing Medi-Cal recipients the option of choosing from among at least two health care plans, including but not limited to HMOs, prepaid health plans, independent practice association, various insurance coverages, organized county health systems, private foundations and university medical center systems.

Additionally, the governor has designated a person in his office to act as a special negotiator to (1) negotiate rates, terms and conditions, or call for bids, for contracts with hospitals for inpatient services; (California has received a waiver from the federal government for inpatient contracting); (2) negotiate exclusive contracts with any county which seeks to provide or arrange for the provision of health care services; and (3) issue a request for proposals to provide medical and hospital care services on a prepaid capitated basis in counties where beneficiaries are given the option of choosing from among at least two health care plans. Between January and July-1983, the Commission is to monitor and review the activities of the special negotiator. After July 1, 1983, the Commission is to assume the special negotiator's duties.

The California Director of Health Services is authorized to contract with individual physicians, groups of physicians or other providers to provide services to Medi-Cal beneficiaries. Such contracts may include provisions to do the following: promote case management; provide for alternative methods of payment, including but not limited to a prospectively negotiated reimbursement rate, fee-for-service, retainer, capitation or other basis; permit the individual physicians, groups of physicians, or other providers to participate in a manner that supports the organized system mode of operation; encourage group practices with relationships with hospitals having low unit costs.

Arizona Health Care Cost Containment System (AHCCCS)—The AHCCCS system was created to develop and administer a joint state and federal program for indigent health care. This legislation replaces state statutes that required the counties to respond to

the health needs of the poor. This is an experimental alternative to Medicaid for Arizona, the only state that does not participate in the federal Medicaid program. The overall goal of the AHCCCS plan is to develop and test an innovative payment and delivery system for providing health care services which facilitates cost containment while, at the same time, encouraging quality care in an efficient fashion. One of the unusual aspects of this program is that persons eligible to participate in the program will include not only the indigent and the medically needy, but also county, state, and private sector employees whose employer offers health care coverage through this system.

The AHCCCS model includes six major devices for containing costs: (1) the creation of a network of primary care providers who will act as "gatekeepers" in authorizing and supervising largely acute medical care to recipients; (2) prepaid capitated contracts; (3) competitive bidding; (4) the use of nominal copayments; (5) limited restrictions on choice of providers and primary care physicians; and (6) capitated payment by HCFA to the State of Arizona.

Arizona has received a demonstration waiver from HCFA which includes provisions for cost sharing requirements and for restrictions on free choice of provider. Probably the most innovative elements of the Arizona plan are that a statewide agency is responsible for contracting with providers at the county level to provide care for each county, and that the primary provider may be any one of a wide range of organizations—insurers, IPAs, HMOs, hospitals, labs, etc.

The AHCCCS proposal develops a research design and strategy for testing the effectiveness of AHCCCS objectives derived from the overall goal stated above. The objectives are (1) to show that primary care physicians are willing and able to control the use and cost of medical services for specified populations; (2) to demonstrate that competitive bidding of prepaid capitated contracts (it is unclear whether the primary care physicians will be at financial risk for their own and/or referred services) provides proper physician incentives for the conservative management of medical care services, without adversely impacting quality; (3) to evaluate what effect the inclusion of business, county and state employees (i.e., the non-needy) will have on motivating health care providers to bid on AHCCCS; (4) to show that the imposition of minimal copayments will lead to a decrease in service utilization without causing a significant decrease in utilization for necessary medical services (while, simultaneously, enhancing client self-image); and (5) to demonstrate that some restrictions on freedom of choice (i.e., recipients will be able to choose a provider, but only from within a specified group of participating providers) by recipients for provider and primary care physician selection will lower costs by reducing duplication of services, without sacrificing the delivery of needed services.

The hypotheses to be tested in the research and evaluation component derive from these five objectives. The research design contains three essential strategies: the first considers pre- and post-AHCCCS experiences in Arizona; the second considers a comparison of Arizona's AHCCCS delivery system with a fee-for-service delivery system in a comparable state; and the third calls for a set of trend-line analyses.

Group Health Plan of Northeast Ohio—This plan has been operational in six counties in Northeast Ohio since 1975. The plan does not treat Medicaid patients exclusively. Care is provided at several sites throughout the six county area. The primary health care provider serves as the manager for all required health care services. When a member joins the plan he must choose one of Group Health Plan's medical care providers; this can either be a solo practitioner or a group practice. All Medicaid enrollees receive the same card as other enrollees and the source of their premium is not identifiable to the physician. This mechanism has served to strengthen the physician/patient relationship often missing with the Medicaid patient. The provider is paid a fixed monthly capitation rate from which he is expected to pay for his own services as well as those services to which he referred the patient. If the patient was not referred by his primary care physician, the cost of the specialty service is not covered. The cost of hospital care is covered by the plan and is not included in the physician's capitation fee. At the end of the contract year, the physician shares in any surplus in his allotted hospital pool; however, if there is a deficit, he must pay back up to 5% of the capitation paid during the year. Medicaid pays the Group Health Plan approximately 95% of the average adjusted per capita cost of comparable fee-for-service clients. Of this, the primary care provider receives about 28% and the remainder covers services, such as hospitalization, for which the provider is not responsible. Group Health Plan assumes full risk for the case of its enrolled recipients except for nursing home care. Any losses or savings over or below the 95% capitation rate are retained by the plan.

Health Care Brokers

Another alternative delivery model for Medicaid is one in which the state contracts with a "broker" who assumes responsibility for enrolling Medicaid beneficiaries. Potential enrollees are informed by the broker of the various Medicaid "plans" in their area accepting enrollees, associated premiums, and benefits. After the Medicaid eligible enrolls, the Medicaid "plan" bills the state for the plan's share of the monthly capitated premium. The state could reimburse each plan a different amount, but the maximum level would be set at a percentage of the weighted average of each plan's negotiated rate. The weights are based on projected total enrollment in the plan.

Multnomah County, Oregon—"Project Health"—This project was developed by the state of Oregon, using Multnomah County as the "broker." The broker role involves contract negotiation, enrollment counseling, and screening out high risk cases. The county contracts with prepaid health plans from which noninstitutional medically needy beneficiaries have to choose to receive services. During the first two years of the program, beneficiaries could also choose a fee-for-service delivery system. The project established a beneficiary premium that is dependent upon, but not equal to, the difference between the chosen plan's premiums and those of the lowest cost plan.

According to HCFA, Project Health has shown that medically needy beneficiaries are willing and able to share in the cost of prepayment plan premiums. The

Project collected 80% of enrollee debts without any special effort. The final HCFA evaluation of the project indicated that enrollment counseling was the most successful aspect of the project.

General Prepaid

California Prepaid Health Research Evaluation and Demonstration (PHRED)—California Medi-Cal offers a dual choice option between a fee-for-service Medi-Cal card and HMO enrollment to AFDC eligibles. In the early stages of the program, California tested various options for marketing HMOs to Medi-Cal patients. Comparison of door-to-door solicitation versus welfare office marketing techniques (brochures, personal presentations by welfare staff or HMO marketing staff) revealed that welfare office marketing techniques were just as effective and much less costly. California has chosen to implement the dual choice system with informational presentations made in the welfare office by county workers.

Redwood Health Foundations (RHF)—The Redwood Health Foundations is a joint venture of the Foundations for Medical Care of Sonoma and Mendocino-Lake Counties. The foundation is completing its ninth year under contract with the State of California to provide payment for health care to all public assistance beneficiaries in the three counties. The state pays RHF a monthly capitated premium per beneficiary that varies by category of aid. The premiums are determined via a methodology previously agreed upon by both RHF and the state. From this premium RHF pays for all health care except dental, major organ transplants, and long term institutionalization for psychiatric care or alcohol and drug abuse rendered to public assistance beneficiaries of the three counties, whether the services are provided in or out of the project area. All risk for provision of care to the beneficiaries is assumed by the participating providers in the foundation. All providers are reimbursed by the foundation on a fee-for-service basis. There are no copayments or deductibles for the beneficiaries to pay. The beneficiary is automatically placed in the program by the state if he is eligible. However, the State of California does not restrict the beneficiary to seek care only from a risk-taking provider. Beneficiaries who live in these three counties (and are therefore automatically enrolled in this program) may seek care from any provider of choice, risk or non-risk, in or out of the project area, and still be covered by RHF. RHF reports that it has not found the inability to restrict the beneficiary to a given group of providers or to the project area a disadvantage of any kind.

Additional Medical Society Proposed Changes to Medicaid

Hawaii Medical Association—The Hawaii Medical Association (HMA) has proposed several changes for the Hawaii Medicaid program. The HMA "plan" was developed primarily due to escalating health care costs and the excessive and inappropriate use of facilities. HMA has proposed the use of copayments, patient education, prior authorization for elective procedures, guidelines for extension of hospital stay and ambulatory care review. The HMA also expressed its concern that the level of physician reimbursement has not changed since 1976 in Hawaii for Medicaid.

Pennsylvania Medical Society—The Pennsylvania Medical Society Board of Trustees adopted a position paper on Medicaid in April, 1980. This was developed primarily due to the excessive costs and what PMS described as "grossly inadequate payment policies." PMS has proposed the elimination of some medical assistance services which are not mandated by Title XIX, but which Pennsylvania Medicaid now covers. PMS notes that the present system encourages inpatient and discourages outpatient services. Furthermore, the medical society has proposed (and received from the state) an increase in the office visit reimbursement, the simplification of formal outpatient provider agreements, reduction in the number of services covered and a general upgrading of fee schedules.

Help for Impaired Physicians

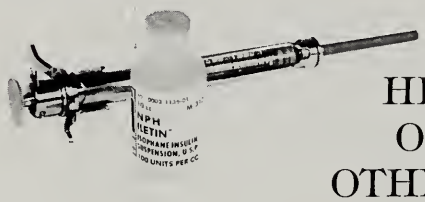
Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism, other drug addiction, psychiatric disorders or senility. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

HELP US TO HELP

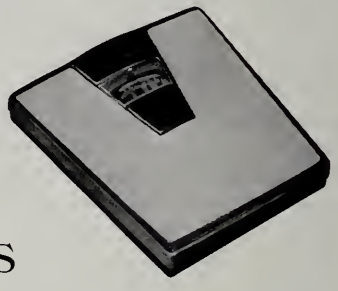
Call the TMA Impaired Physician Program (615) 327-2711; outside Nashville call collect. Phone service available around the clock.

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Training in Geriatric Medicine: An Unmet Need

JAMES A. GREENE, M.D.

The special knowledge and perspective known as geriatric medicine must be introduced into the health care curriculum, intern and residency training, and into programs for continuing medical education for today's health care professionals. If this is not done, we face a further decline in the quality of life of America's older population and a staggering rise in health care costs. At the present time 28 million Americans are age 65 or older and the number is expected to reach 50 million in the next 30 years.

In treating the old, health care professionals need to recognize the difference between normal change in the body due to aging and the disease states of the elderly person.

Symptoms present themselves differently in the old, and the physician not knowledgeable in geriatric medicine may miss diagnoses. For example:

- An older person with hyperthyroidism can appear apathetic rather than hyperactive.
- Appendicitis can occur in an older person without tenderness of the abdomen, without fever, and without an elevated white blood cell count; there may be only general symptoms, such as tiredness and confusion.
- An older person may have a heart attack without chest pain, and may even appear confused and disoriented like a stroke victim; only an electrocardiogram will be diagnostic.
- Old people react differently to drugs, and the use of multiple drugs may even create paradoxical reactions.
- Overuse of tranquilizers and sedatives may produce a syndrome that mimics dementia (senility).

Formal training in geriatrics would improve the care given to old people and would cut costs. In 1977 Americans spent $143 billion on health care; about 50% of this staggering figure was used to treat chronic disease. The 1.2 million patients in nursing homes totaled more than those in hospitals, and nearly one-fourth of all drugs consumed in the United States were used by older Americans.

The high cost to both the individual and the country are magnified by less than optimal service delivery resulting from diagnosticians and technicians lacking training in the specialized approach to geriatric medicine. Until the past five years or so there were only one or two schools of social work, one or two schools of nursing, and no medical schools offering specialized training in geriatrics. Today, however, as the need for such programs is being recognized, they are becoming more available in some areas.

Significant numbers of nursing home patients suffer from reversible conditions often misdiagnosed as "senility"; they could be treated as outpatients. Pseudodementia (depression) and drug interaction problems are the two most common treatable causes of dementia, perhaps accounting for 15% to 20% of all cases. Both are usually completely reversible if recognized and properly treated.

The medical problems of America's old and the high cost of health care are clear and, for once, so is the solution. America should act rapidly and decisively to provide quality health care professionals to care for this country's aged.

From the Gerontology Center, East Tennessee Baptist Hospital, Knoxville. Dr. Greene is a member of the Tennessee Medical Association Long Term Health Care Committee.

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Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

Peninsula is fully accredited by the Joint Commission on Accreditation of Hospitals and is a member of the American Hospital Association, Tennessee Hospital Association, Federation of American Hospitals and the National Association of Private Psychiatric Hospitals.

The Professional Staff is composed of psychiatrists, licensed clinical psychologists, psychiatric social workers, psychiatric registered nurses, adjunctive therapists, and mental health workers. This experienced team, together with ancillary hospital workers, provides a dynamic treatment program designed for each individual to bring about change and emotional growth in the patient.

Peninsula provides a special treatment program for alcoholic and drug abuse patients. Another program is designed specifically for adolescents. The adolescent treatment program includes a fully staffed school program. An individual education plan is designed for each adolescent.

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Patients may be referred to Peninsula by their own physician, former patients, or may be self-referred. Voluntary patients as well as those who are directed to the hospital by a court are accepted for treatment. It is desirable for the hospital to receive information from physicians, therapists, family and friends who know the patient. Treatment is individualized based upon the needs of the patient.

Appointments for admission can be made by calling the hospital directly. The phone numbers are:

Knoxville	573-7913
Maryville	983-8216

Subacute Thyroiditis

ALAN L. GRABER, M.D.

Case Report

A 41-year-old married woman was seen with a three-month history of aching pain in the neck which had spread to both shoulders. She had first developed severe pain on swallowing and swelling in the left side of her neck. After two weeks of persistent pain on the left, similar pain and swelling developed in the right side of the neck.

Physical examination revealed a woman who appeared generally healthy, but complaining of pain. Her temperature was 99.8°F. Although she was clinically euthyroid, the thyroid gland was visibly enlarged to three times normal size. The right lobe was exquisitely tender to touch, and the left lobe was slightly tender. There was no adenopathy. The rest of the physical examination was negative.

Laboratory studies revealed a white blood cell count of 12,700 and hematocrit of 38%. The T_4 thyroxine was 12.3 μg/dl (normal 4.5 to 12.4), and the T_7 free thyroxine index 3.7 (normal 1.2 to 3.4). A thyroid scan showed multiple cold nodules typical of multinodular goiter. The 24-hour I-131 uptake was 5%.

After ten days of treatment for subacute thyroiditis with prednisone, 40 mg daily, the patient felt much better, was afebrile, and had no further neck pain. The thyroid was nontender, there were no nodules, and it had shrunk to normal size. Over the next two months prednisone dosage was gradually tapered and discontinued without a flare-up of thyroiditis.

Discussion

Subacute thyroiditis is transient inflammation of the thyroid gland probably due to viral infection, most commonly Coxsackie, mumps, influenza, or adenoviruses. Autoimmunity seems less likely as an etiology, as antithyroglobulin and antimicrosomal thyroid antibodies are not consistently found, and other autoimmune disorders are not associated with subacute thyroiditis.[1]

The thyroid gland is usually tense and tender, and may be diffusely or focally involved. Affected portions show gross disruption and intense infiltration of thyroid follicles by polymorphonuclear leukocytes, followed by a giant-cell foreign body-type reaction. This microscopic appearance is responsible for some of the terminology describing subacute thyroiditis, such as granulomatous or giant-cell thyroiditis. It has also been called de Quervain's thyroiditis. The inflammatory process resolves after an unpredictable period.

Clinically, there may be a prodromal illness with malaise, fever, myalgia, and pharyngitis, but thyroid pain and tenderness is the dominating feature. The pain may radiate to the ears, jaw, or head. In about 25% of the patients a transient stage of thyrotoxicosis occurs, because stored thyroid hormone is expelled from the inflamed thyroid follicles into the blood. The thyrotoxic phase is usually followed by a transient hypothyroid phase. Subacute thyroiditis almost always eventually resolves spontaneously with permanent reestablishment of the euthyroid state.

Patients with silent thyroiditis with no pain or tenderness in the thyroid gland may also develop a transient phase of thyrotoxicosis.[2] In both conditions the thyrotoxicosis is self-limited, is accompanied by markedly suppressed I-131 uptake (less than 5%), and the thyrotoxic symptoms respond to symptomatic treatment with beta-sympathetic blocking drugs. Other than the presence of thyroid pain, the main difference between subacute thyroiditis and silent thyroiditis is that the histologic picture of the thyroid gland in the former shows giant-cell infiltration, and in the latter lymphocytic infiltration.[3]

Laboratory studies in subacute thyroiditis often show elevated erythrocyte sedimentation rate and white cell count. Thyroid hormone levels (T_4, T_3, and free thyroxine index) may be elevated, suppressed, or normal, depending on the phase of the subacute thyroiditis. Likewise, TSH levels may be suppressed and unresponsive to TRH, or may be elevated or normal, depending on the thyroid hormone level. Classically, the 24-hour I-

From St. Thomas Hospital, Nashville.

(Continued on page 531)

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 34-year-old plant worker had a 24-hour ambulatory electrocardiogram for evaluation of palpitations. He had no chest pain, dyspnea on exertion, or other symptoms referrable to his cardiovascular system. He had a history of increased ethanol intake with occasional use of marijuana. Figure 1 is representative of his two-channel ambulatory 24-hour electrocardiogram.

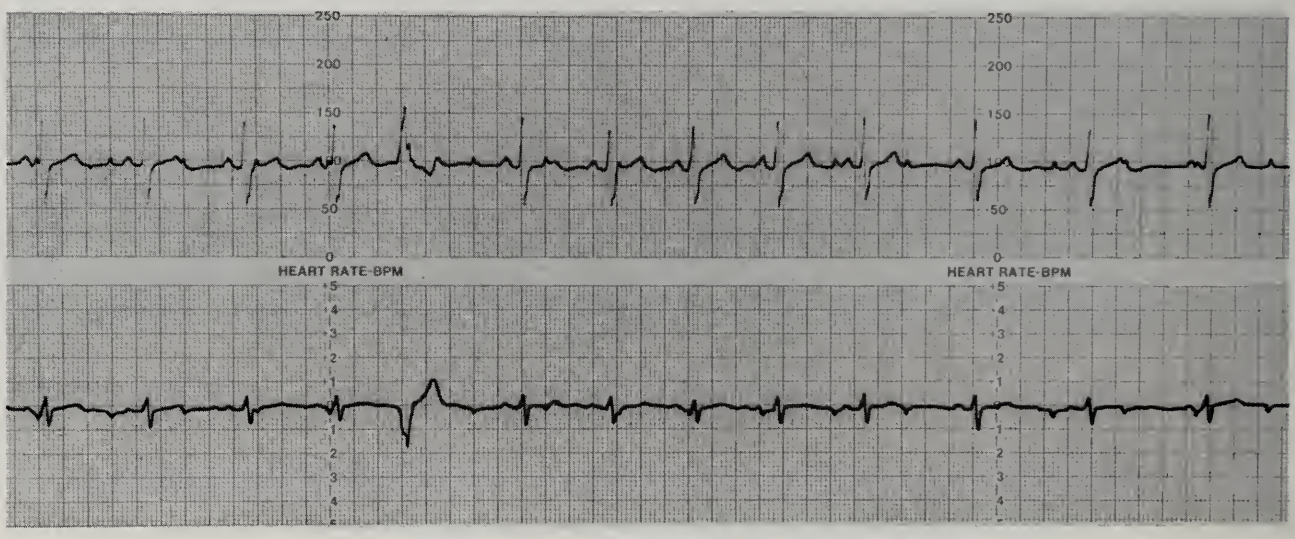


Figure 1

Discussion

The tracing shows a sinus arrhythmia with constant PR intervals but varying PP intervals. The PP interval on the left side of the tracing is 0.85 seconds (71/min), while toward the right side of the tracing it is slower, at approximately 1.0 seconds (approximately 60/min). A single premature ventricular contraction (fifth beat from the left) is followed by a fully compensatory pause.

The striking finding in this tracing is another set of P waves (P′) that are totally independent of the underlying rhythm. The P′ are inverted in the second (lower) channel and are upright in the first channel. They are of slightly smaller amplitude than the P waves that capture the ventricle. A P′ is seen just preceding the first QRS complex. The P′ to P′ interval is quite regular at 0.6 seconds (100/min), and the second P′ wave is therefore well in front of the next normal P wave.

The occurrence of two discrete and different types of P waves entirely independent of each other is referred to as atrial dissociation. Atrial dissociation differs from atrial parasystole in that P′ waves never result in ventricular capture. Atrial dissociation results from depolarization of a localized area of atrial tissue that does not reach the AV junction. A high grade entrance and exit block is necessary to prevent this atrial tissue from being depolarized by or depolarizing the remainder of the atrium.

Atrial dissociation is an unusual and controversial dysrhythmia. Contraction of respiratory

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

muscles may produce an electrocardiographic artifact simulating atrial dissociation.[1] Examples of pseudo-atrial dissociation produced by hiccup artifacts have been documented.[2] Atrial dissociation is a real phenomena however, and has been well documented with intra-atrial electrograms.[3] Anatomic isolation of the right and left atria could result in this phenomenon and experimental interruption and intra-atrial connections has been shown to cause atrial dissociation. Clearly, however, atrial dissociation may occur within a single atrial chamber as well.[3] Atrial dissociation has been experimentally induced by exposure to high concentrations of digitalis and yohimbine.[4]

It has been suggested that pseudo-atrial dissociation may be artificially produced on ambulatory electrocardiograms by incomplete erasure of the recording tape between uses.[5] In order to mimic atrial dissociation, partial tape erasure would have to reduce the size of the QRS signal, causing it to resemble a P wave. Erasure of recording tapes is carried out by exposing them to 60 cycle alternating current. This could result in loss of the high frequency signal components, resulting in reduced amplitude of the total complex, and might theoretically simulate a P wave. Experiments with incompletely erased tapes in our ambulatory electrocardiographic laboratory could not reproduce this artifact.

The patient's palpitations improved, and routine electrocardiogram taken 72 hours later showed no further evidence of PVCs and no evidence of atrial dissociation.

CONCLUSIONS: Sinus arrhythmia; premature ventricular contraction; atrial dissociation.

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Endocrine-Metabolic Case of the Month

(Continued from page 529)

131 uptake is markedly suppressed, and, along with the tender thyroid gland; is the most useful diagnostic feature.

Treatment with salicylates often controls the pain of subacute thyroiditis. If salicylates are ineffective, prednisone, 20 to 40 mg daily, is indicated for symptomatic relief. Glucocorticoids control symptoms, but do not influence the duration of the disorder. Therefore, the time required for treatment and then tapering of dosage is variable and depends on the spontaneous resolution of the inflammation—usually within several weeks or a few months, but occasionally much longer.

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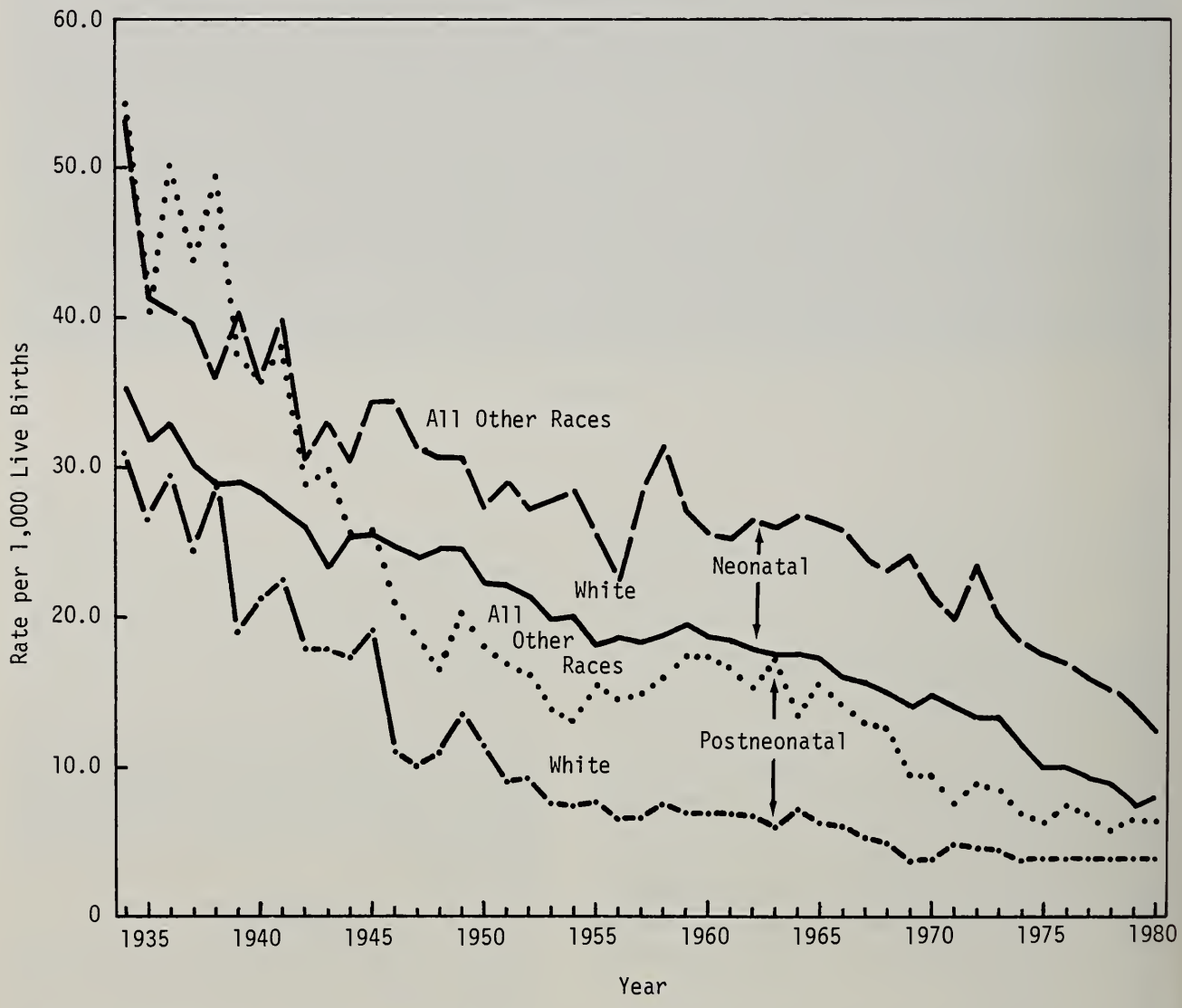
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Infant Mortality Decreases Dramatically

PATTI DEBERRY

The survival rate for infants has increased dramatically. In 1934, the first year resident data were available, 72.5 of every 1,000 infants born to Tennessee residents died before the age of 1 year. By 1950, the rate was cut in half—36.2 of every 1,000 infants. Although between 1950 and the mid-1960s the infant mortality rate declined, it was at a much slower rate. Between 1965 and

Infant Mortality Rates per 1,000 Live Births According to Neonatal and Postneonatal Periods, by Race, Resident Data, Tennessee, 1934-1980



From the Tennessee Department of Public Health, Nashville.

1980, the infant mortality rate has increased only once, in 1972. The infant mortality rate decreased 52% from 27.7 deaths per 1,000 live births in 1965 to 13.4 in 1980.

In 1980, an infant of a race other than white was more than one and one-half times as likely as a white infant to die before 1 year of age. Lower mortality among white infants has consistently been observed. The gap has not narrowed but has stayed about the same since 1934.

The trend in total infant mortality disguises the differences in the trends of the two components, neonatal mortality (deaths during the first 27 days of life) and postneonatal mortality (deaths between 28 days and less than one year of age). A greater difference has existed between white and all other races for postneonatal mortality than for neonatal mortality.

A larger proportion of the declining infant mortality can be attributed to decreasing postneonatal death rates. Between 1934 and 1965, postneonatal mortality declined by 76%. From 1965 to 1980, a 48% decrease occurred.

For white infants, postneonatal death rates declined by 80%, compared to a 71% decrease for all other races from 1934 to 1965. The ratio of the postneonatal mortality for all other races to that for whites increased from 1.8 in 1934 to 2.5 in 1965. But between 1965 and 1980 the trend shifted, postneonatal rates declined 56% and 39% for infants of all other races and white infants, respectively. Thus, the ratio between all other races and white postneonatal mortality rates decreased from 2.5 in 1965 to 1.7 in 1980.

For the neonatal mortality rates between the 1934 and 1965, there was a 51% decrease for the white infants and a 50% decrease for the infants of other races; therefore, the ratio of 1.5 did not change in this time period. Similarly between 1965 and 1980, the neonatal mortality rates decreased 53% for infants of both the white race and all other races. The ratio changed only slightly from 1.5 in 1965 to 1.6 in 1980.

In 1980, infants had a better chance of surviving than ever before; only 13.4 of every 1,000 infants of Tennessee residents died before the age of 1 year. The white and all other races infant mortality rates in 1980 were 11.8 and 18.8, respectively. The mortality rate for the neonatal group was 9.1 per 1,000 live births in Tennessee for 1980, and if the infants lived at least 27 days, only 4.4 of every 1,000 infants died before the age of 1 year.

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*Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME; Philadelphia, Lea & Febiger, 1980, p. 781.

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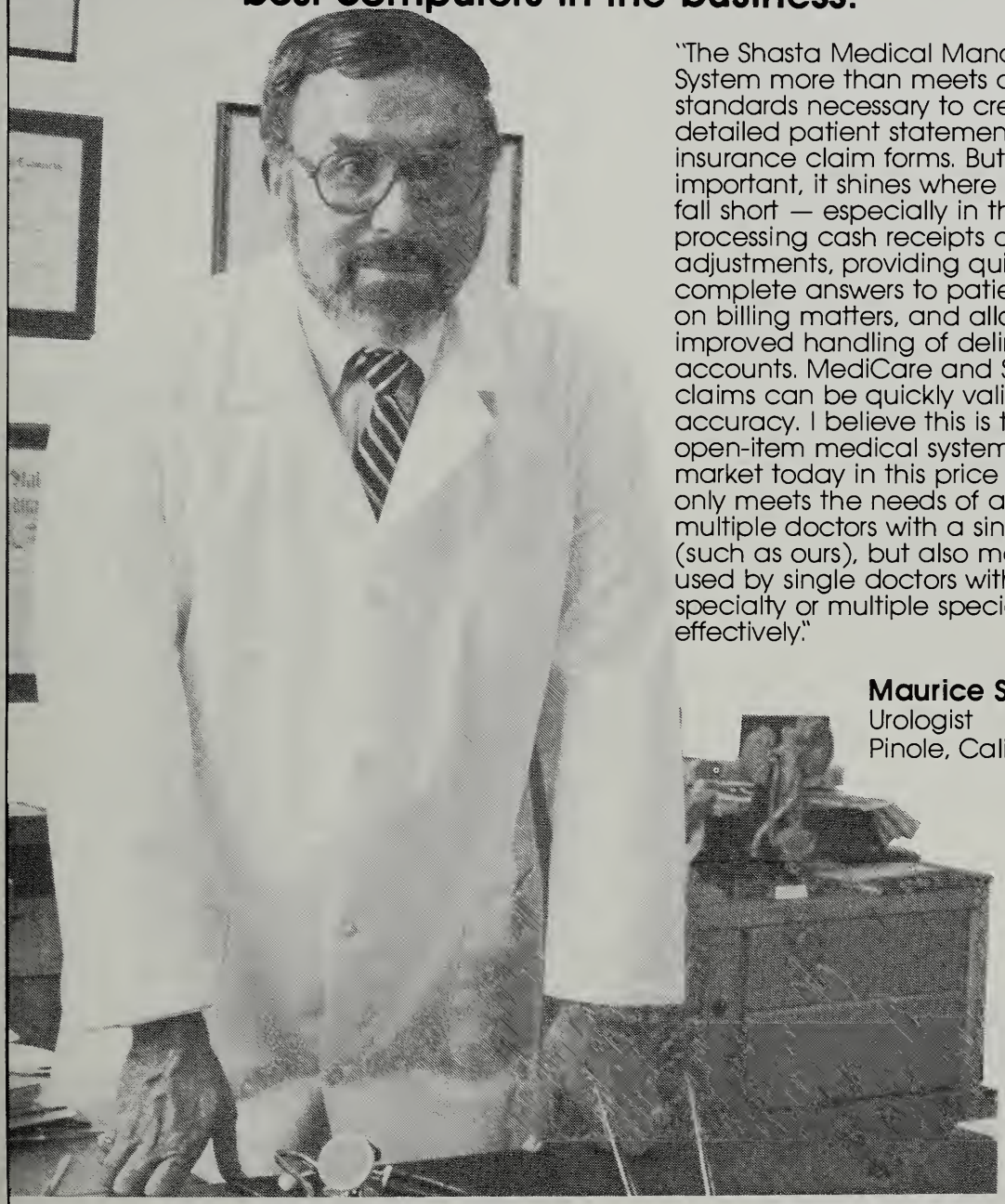
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AUGUST, 1983

editorials

Geriatrics

From time to time I get a request from someone wishing to start a regular feature in the *Journal*, like the EKG of the Month. We have had several such over the years I have been editor, but only that one has had a really long run. I have become at best philosophical and at worst cynical about such things, as early enthusiasm generally palls when the supplicant realizes he has to meet a deadline with an article every month (*every* month). It quickly becomes a chore for both of us. My philosophy about such things is that I will not even consider such a column unless it appeals to a broad spectrum of our readers. This is not to say, of course, that the individual article would not be accepted. It is only the *regular* feature I am speaking of.

There is nothing that has a broader interest, I should think, either medically or personally, than the problems of aging, categorized these days under the heading of geriatrics, though there is less unanimity as to when the terms "elderly" or "aged" apply. The arbitrary age of 65 for declaring one over the hill has been ruled unconstitutional, not to mention impractical. Though one can become a member of the American Association of Retired Persons at age 55, and officially become a senior citizen at age 65, chronological age gives almost no indication at all of either productivity or health status. Some people do in fact retire at 55 when they can afford it, but many that plan to don't, for various reasons. (Some have been effectively retired all their lives.) Some retire from one occupation only to start another. Benjamin Franklin, for instance, had several careers, some concurrent, but he really hit his stride after he passed 70. In reading his autobiography one gets the impression he never thought of himself as old—and so he never was.

The age at which one becomes subject to geriatrics, then, is somewhat less precise than when one leaves the pediatric age group (though there is overlap there, too), but unless the problems of the aging are better understood than they are now, the situation is due to become cloudy indeed. The problems of aging start, of course, at birth—maybe even at conception—since they are at least partly due to cosmic radiation. At some time or another in each life those problems become sufficiently weighty to put their owner into the geriatric camp. Many doctors do not know how to recognize that transition, and even fewer know what to do about it. It is the fault of our educational system, policies for which have been formed generally by those who have not yet come to the realization that they just might someday make the jump themselves. That is changing.

Along with a couple of short articles by James A. Greene, M.D., Medical Director of the Gerontology Clinic of the East Tennessee Baptist

Hospital in Knoxville (its very existence is an indication of today's trends) came a letter from Carl Adams, M.D., chairman of TMA's Committee on Long Term Health Care, to the effect that the committee has a primary interest in geriatric education at both the graduate and postgraduate levels, and wished the *Journal* to enter into the project by publishing a column on geriatrics. In line with my philosophy on such things, and a conviction that the committee will stick to its commitment long enough to make it worth our while, I accepted the invitation, and we begin a section on Geriatric Medicine with this issue. Whether it is monthly or not depends upon our suppliers, but the previews look good, and you would all do well to take heed.

J. B. T.

Prospectus: On Living Forever

In an address a few years back, Harry Schwartz, now a health economist at Columbia University, but then economics editor for the *New York Times*, answered the question of what the public expects of doctors. It is, he said, that they might live forever with full sexual powers, and at no cost to themselves. It sometimes seems as if we (speaking figuratively) are on our way to fulfilling that dream, but at other times it appears we are no closer than ever.

According to the Biblical account, following Adam and Eve's disobedience in eating of the fruit of the tree of knowledge of good and evil, God expelled his disobedient children from the Garden of Eden, lest, He said, they should eat of the fruit of the tree of life, and live forever. After the flood, man's life span was fixed at 70 years, with any years past that filled with suffering and sorrow. Until relatively recent years, few made it even to 70, but now there are any number of sprightly centenarians. We have by now apparently abolished one of man's great scourges—smallpox—and every day we read of how we are on the verge of eradicating this or that disease. Replacing kidneys is no longer any great feat, and now hearts are being replaced—even heart and lung preparations in some cases. So are livers, and soon perhaps any organ on demand, possibly with synthetic parts. The discovery of oncogenes has, according to some enthusiastic investigators, given us so much insight into carcinogenesis that the more optimistic see an early conquest of cancer, though caution has been urged by cooler heads.

Caution, indeed. Even while the old infectious diseases are waning under the onslaught of antibiotics, chemotherapeutic agents, and immunization and other public health measures (the relief is not worldwide, by any means, which we should always keep in mind), some of them, like the phoenix, are constantly renewing themselves. Adding to the growing list of resistant pathogenic microorganisms, recent issues of both *MMWR* and *JAMA* have chronicled the rise of a chloroquine-resistant strain of *Plasmodium fulciparum*, and the emergence of a spectinomycin-resistant, penicillinase-producing strain of *Neisseria gonorrhoeae*. Furthermore, new diseases are constantly cropping up. As an example, what started out as a curiosity in an apparently clearly and narrowly defined population has now blossomed into a full-fledged, frightening epidemic, as the acquired immunodeficiency syndrome (AIDS) has come to be perceived as perhaps easily transmissible to an ever-widening population in ways not yet determined.

Even assuming conquest of infectious diseases and replacement of parts, man still has a number of degenerative and autoimmune diseases to contend with. If we also assume even those will become curable one day soon, there are environmental problems with, for example, accumulation of both radioactive and nonradioactive toxic wastes. Always lurking in the background is the possibility of a thermonuclear war, which would of course pretty much obviate solution of all other problems.

If mankind can manage to survive those hazards, perhaps medical science is indeed on the verge of providing us with eternal life and perfect health. On the other hand, perhaps not. Man's record is impressive, but so is God's. We are generally still stuck with our threescore and ten, give or take a few. I am far from convinced that is bad, and that in the present climate anyone offering me such a package as Mr. Schwartz suggests would be doing me much of a favor. In the first place, from society's viewpoint, given the earth's present crowded condition, removing the bounds on longevity would certainly create logistical problems of staggering proportions, and old retreads might fare poorly. Then too, assuming disease and the aging process were abolished by medical science, preservation of physical health

requires adequate nutrition, which is society's responsibility, not medicine's, and, as the population inevitably burgeoned, a responsibility that would be increasingly difficult to fulfill. Maintaining mental health in such a situation would likely be an even greater challenge. There would be no choice but to institute absolute regimentation to control such a massive operation. We would have to either colonize other planets, hang some satellites up in the sky, or dig down deep to make room for all the folks. All these have been suggested by those who say man has always managed to meet every challenge. Personally, I find the prospect of such an existence appalling, but then I also find appalling some of the more proximate situations the present young are sure to face before they get to be my age, if indeed they do.

I would hate to take bets on any of the above-suggested alternatives, as prognostication is hazardous at best, so I will close by simply observing that, historically, man's reach has always exceeded his grasp, which is doubtless a good thing.

J.B.T.

in memoriam

Otha Albert Eubanks, Jr., age 57. Died May 27, 1983. Graduate of University of Maryland School of Medicine. Member of Memphis-Shelby County Medical Society.

Roger C. Fulmer, age 51. Died June 21, 1983. Graduate of Temple Medical College. Member of McMinn County Medical Society.

George Lake Inge, age 86. Died May 14, 1983. Graduate of Columbia University College of Medicine. Member of Knoxville Academy of Medicine.

Eugene M. Regen, Sr., age 83. Died June 9, 1983. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

C. Buford Scott, age 64. Died June 11, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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Linton Louis Kuchler, M.D., Chattanooga

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE
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Thomas W. Ellis, M.D., Jackson

KNOXVILLE ACADEMY OF MEDICINE
Byrce C. Anderson, M.D., Knoxville
Kamilia F. Gitschlag, M.D., Knoxville

LAKEWAY MEDICAL SOCIETY
David A. Walker, M.D., Morristown

McMINN COUNTY MEDICAL SOCIETY
Fred J. Ergen, M.D., Athens

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY
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George S. M. Cowan, Jr., M.D., Memphis
Mohan M. Gehi, M.D., Memphis
Wesley Earl Jones, M.D., Memphis
Sherman Elliot Kahn, M.D., Memphis
William Riley Kendrick, Jr., M.D., Memphis
Jesse Edward McGee, M.D., Memphis
A. P. Mahesh-Kumar, M.D., Memphis
James Keith Menees, M.D., Memphis
Charles Wayne Mercer, M.D., Memphis
Richard Graves Soper, M.D., Memphis
Manuel Eugene Turner, Jr., M.D., Memphis

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Larry D. Gurley, M.D., Nashville
Minati Pattanayak, M.D., Nashville
Ruda Prakash, M.D., Nashville
William Schaffner, M.D., Nashville
Craig Richard Sussman, M.D., Nashville

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY
John M. Chandler, M.D., Bristol

WASHINGTON-UNICOI COUNTY MEDICAL ASSOCIATION
Philipp R. Amlinger, M.D., Mountain Home
Katie Elaine Cook, M.D., Johnson City
Henry C. Reister, III, M.D., Johnson City

personal news

Winston P. Caine, M.D., Chattanooga, has been elected to Fellowship in the American College of Physicians.

Eric H. Conn, M.D., Signal Mountain, has been elected to Fellowship in the American College of Cardiology.

John W. Fetzer, Jr., M.D., Jefferson City, has been certified as a Diplomate of the National Board of Medical Examiners.

Glenn S. Garrett, M.D., Paris, has been elected chief of staff for Henry County General Hospital. Other officers include *Terry O. Harrison, M.D.,* vice chief of staff; and *Tom C. Wood, M.D.,* secretary.

Daniel M. King, M.D., Cleveland, has been certified as a Diplomate of the American Board of Ophthalmology.

Bergein F. Overholt, M.D., Knoxville, has been elected president of the American Society of Gastrointestinal Endoscopy.

TMA Members Receive AMA Physician's Recognition Award

Seventy TMA members qualified for the AMA Physician's Recognition Award during May 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Edward E. Anderson, M.D., Nashville
Robert L. Bell, M.D., Nashville
Walter A. Bell, Jr., M.D., Dickson
William E. Bennett, M.D., Harriman
John R. Blair, M.D., Memphis
Herbert Blumen, M.D., Memphis
John B. Brimi, M.D., Chattanooga
Charles R. Brite, M.D., Columbia
Wilbert E. Brooks, M.D., LaFayette
William O. Campbell, M.D., Chattanooga
Dee J. Canale, M.D., Memphis
Charles A. Cape, M.D., Memphis
John M. Chandler, M.D., Bristol
David E. Eberle, M.D., Chattanooga
Andrew S. Edgar, Sr., M.D., Nashville
Nicholas H. Edwards, M.D., Grand Junction
Owen B. Evans, Jr., M.D., Nashville
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Edgar R. Franklin, M.D., Memphis
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Gary S. Gutow, M.D., Nashville
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William L. Headrick, Jr., M.D., South Pittsburg
James K. Hitchman, M.D., Nashville
G. Jackson Jacobs, M.D., McMinnville
Basia Jenkins, M.D., Knoxville
David K. Jennings, M.D., Memphis
James M. Kamplain, M.D., Chattanooga
Andrew H. Kang, M.D., Memphis
Jerry L. Kennedy, M.D., Tullahoma
David M. Larsen, M.D., Jackson
Cong V. Le, M.D., Union City
Lawrence D. Lubow, M.D., Nashville
Oaklus S. Luton, M.D., Clarksville
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John E. Outlan, M.D., Collierville
Winston C. V. Parris, M.D., Nashville
Charles W. Parrott, Jr., M.D., Memphis
Robert E. Pollnow, M.D., Memphis
James S. Powers, M.D., Ashland City
Hugo C. Pribor, M.D., Nashville
J. Kenyon Rainer, M.D., Memphis
Jerry F. Randolph, M.D., Memphis
Raymond W. Rhear, M.D., Alamo
James T. Robertson, M.D., Memphis
Solomon A. Rosenblum, M.D., Nashville
Michael B. Seshul, M.D., Nashville
Paul J. Sides, Jr., M.D., Kingsport
Harold P. Smith, M.D., Nashville
Sylvia S. Strock, M.D., Memphis
Viston Taylor, Jr., M.D., South Pittsburg
Ronald L. Terhune, M.D., Memphis
Richard B. Terry, M.D., Nashville
Nora B. Tiongson, M.D., Celina
Thomas R. Traylor, M.D., Knoxville
C. Richard Treadway, M.D., Nashville
James R. Troutt, Jr., M.D., Gallatin
Louis E. Tyler, M.D., Memphis
Phil J. White, M.D., Chattanooga
Thomas O. Wood, M.D., Memphis

national news

From the AMA's Office in Washington, D.C.

Support Mounts for President's Insurance Tax Cap

Since "controls on physicians and hospitals cannot by themselves halt health care inflation," the United States should "change the economic incentives facing all the key participants in the health care system" by adopting the Reagan administration's proposed tax on employer-paid health insurance benefits above a certain ceiling, Robert Rubin, M.D., told a Senate panel in June.

Rubin, Assistant Secretary for Planning and Evaluation with the Department of Health and Human Services, testified before the Senate Finance Committee which is considering S.640, a tax cap proposal introduced by Committee Chairman Robert Dole (R-KS) at the administration's request. The measure would, as of Jan. 1, 1984, tax as income to the employee any premium contributions by his employer in excess of $175 a month per family or $70 per month per individual.

Rubin reported that HHS estimates the proposal would generate $2.1 billion in tax revenues in 1984 and $27.4 billion over the next five years. The 30 million workers affected in the first year would have a tax increase of $228.

The tax cap is favored by Dole, who has suggested that revenue from it might be used to finance a health insurance program for the unemployed, a tactic the administration favors only if the cap is lowered to generate new revenues on top of those anticipated from S.640.

Nevertheless, the tax cap does not appear to have an avid constituency in Congress and an informal poll of Finance Committee members is said to have turned up only a few who favor it. Though support was slightly stronger for a cap used to finance health insurance for the unemployed, a majority of Finance members opposed that approach.

Rubin said the cap is necessary because the "major threat to quality medical care in the U.S. is a continuation of the trend of inordinate inflation in health expenditures" and because employer payments into private health plans are projected to rise from $50.5 billion in 1980 to $178.4 billion in 1990, diverting employee compensation away from taxable wages.

He maintained that the tax cap would encourage innovative employer programs such as health promotion plans and preferred provider organizations as well as increased cost-sharing to encourage patients to shop for care. He said the tax cap would reduce current tax code inequities that favor high income employees.

The National Association of Governors and most health care providers, including the American Hospital Association, the Federation of American Hospitals, and the American Academy of Pediatrics, supported the tax cap.

William R. Felts, M.D., told the committee that the American Medical Association thinks "a cap would increase consumer cost-consciousness and thereby help to reduce the increases in health care costs."

Felts' testimony came just as the AMA's House of Delegates at its annual meeting in Chicago was approving a revised set of consumer choice principles which includes support for a cap on the amount of the employer-paid health insurance premiums that are tax-free to the employee.

A Washington, D.C. internist, Felts also said the AMA has two concerns with the administration's tax cap proposal. First, he suggested the annual increase in the ceiling should be indexed to medical care cost increases rather than to the general CPI. Second, the AMA would like to "urge employers, employees and third party payors to adjust plans by increasing patient cost-sharing and offering multiple plans with varying deductibles and levels of coinsurance rather than reducing the breadth of benefits."

One concern that has been raised by opponents of the cap is that it would discourage insurance for preventive care while continuing hospital coverage at the present levels.

American Dental Association President Burton Press told the committee a tax cap would "penalize prevention-oriented, cost-effective dental prepayment plans." But, AAP President James E. Strain, M.D., said that health plans have always discriminated against preventive benefits, particularly those for children. He called for adoption of the tax cap, but urged that tax deductions be prohibited for employer insurance plans failing to provide preventive care for children.

Resistance to the cap came from employers, unions and insurers, and some of the opponents accused the provider supporters of pushing the tax cap as a means of staving off further controls on hospitals and physicians.

In general their objections to the cap are that the cap would penalize older workers; be unfair to "hazardous, high-risk occupations"; be "double taxation" because workers would be taxed on high premiums necessitated by the federal government's cost shifting to private patients; not take geographic differences in the price of health care into account.

The same arguments were advanced by several committee members, with Sens. Robert Packwood (R-OR) and Lloyd Bentsen (D-TX) honing in on the impact of the cap on older workers and Sen. Bill Bradley (D-NJ) questioning its effect on high-risk industries.

Packwood also said he doesn't believe the cap will generate the savings projected for it and that it could prompt demand for a national health insurance plan in the United States.

Durenberger retorted that employer-based insurance already constitutes a national health plan but it only "covers 68 million" households and due to its high cost prevents extension of coverage to the remainder of the population.

Dole noted that the House and Senate would soon be voting on a budget resolution and predicted that

Finance members may feel differently about the cap when they begin to wrestle with the resolution's mandate that the Finance Committee come up with $73 billion in new revenues over the next three years.

Orphan Drug Approved

The Food and Drug Administration announced the approval of Lithostat, the second "orphan drug" approved since congressional legislation gave manufacturers incentives to develop drugs for rare diseases.

Lithostat (aceto-hydroxamic acid) reduces the ammonia content in the urine of paraplegics, a leading cause of kidney damage and even death in these patients. Because this is a source of kidney damage unique to paraplegics, only 50,000 persons are expected to benefit from the drug.

In these patients, antibiotic-resistant bacteria cause a buildup of ammonia in the urine. The ammonia precipitates calcium and minerals, which form kidney stones. But because the patient may not feel the pain associated with kidney stones, they continue to develop undetected. Kidney failure, even death, may result.

Coincidentally, the only other orphan drug to receive recent FDA approval was also designed to prevent kidney damage: sodium cellulose phosphate treats kidney stones resulting from absorptive hypercalcinuria, an excess of calcium in the urine caused by the overabsorption of calcium in food.

FTC Blesses PPO in New Jersey

In its first pronouncement on the subject, the Federal Trade Commission has given its tentative blessing to a proposed preferred provider organization (PPO) in New Jersey.

The advisory does not have the weight of law and is not binding on courts though courts do consider advisory opinions. It could be revoked at any time. In addition, PPOs have taken many forms and clearance for the New Jersey PPO is not applicable to other types of PPOs.

The advisory is significant, however, in that it represents the FTC's first step into the cloudy legal issues surrounding the PPO concept.

The Commission is studying requests for advisories for several other PPOs as well and FTC official Walter Winslow said that since these cover a "number of differently structured" PPOs, the Commission hopes to issue further advisories that will "clarify" the legal position of PPOs. "We don't want uncertainty over the law to cause people to delay in setting up something that can be procompetitive," he added.

The advisory that was issued went to Health Care Management Associates (HCMA), a Moorestown, N.J. consulting firm that is developing a PPO known as the Cooperating Provider Program. It said the FTC does not believe HCMA's proposed PPO would violate antitrust law and added that the plan "is likely to be procompetitive."

HCMA sees itself as a broker in the arrangement. It would contract with up to 15% of individual physicians, oral surgeons, podiatrists and psychologists in three counties to provide care to patients covered under the plans of insurers or companies that sign up with HCMA.

The providers in the PPO would have a choice between two methods of payment. They could elect to receive the lesser of their charges or a maximum HCMA-determined payment schedule. Or they could be paid their usual, customary and reasonable fee minus a percentage discount of up to 15%. The discount would be specified in the insurer's contract with HCMA.

In its advisory letter to HCMA, the FTC noted that "no actively practicing provider, hospital, or payor has any direct or indirect financial, controlling, or noncontrolling interest in HCMA." It also carefully spelled out that the financial arrangements are to be between HCMA and each individual physician.

Those, according to FTC's Winslow, are two aspects of HCMA's plan that set it apart from many other PPOs. The latter is particularly significant because it distinguished HCMA from the Maricopa Foundation in Arizona, which the Supreme Court ruled had engaged in price fixing by agreeing jointly on the maximum fees its members would seek as payment for services to subscribers of foundation-approved insurance plans.

In that sense, Winslow observed, the HCMA advisory was "easy" compared to others before the commission because it did not raise the question of "what a group of independent, competing providers can do relating to PPO fees when it has not actually established or formed a PPO but has merely put together a provider component for the PPO."

That question could apply to the bulk of HMOs in operation or development to date. A PPO directory developed by the American Medical Care and Review Association lists 64 PPOs in 20 states and the District of Columbia, of which 48 are sponsored by physician groups and/or hospitals.

The degree of financial involvement of the sponsors in these PPOs is not known, however, and a number of groups including the American Medical Association are collecting further information in this area. The AMA's Department of Health Care Financing and Organization has identified about 80 PPO-type arrangements in operation or development across the country and is now trying to determine the financial structure of those PPOs.

In addition, the AMA is preparing technical assistance materials to help physicians evaluate PPOs and has established a clearinghouse to provide information on PPOs to state and county medical societies.

Rhode Island PPO Plan Also Endorsed

The Federal Trade Commission also gave a Rhode Island Professional Standards Review Organization the

go-ahead for its plan to review the medical necessity of care provided to private employer health benefits programs.

The PSRO has asked the FTC in January for an advisory opinion on its plan to conduct preadmission and concurrent reviews of private patients, to recommend appropriate lengths of hospitals stays and to conduct quality review studies. Its recommendations are not binding on the companies and no fee reviews would be conducted under the program.

In a letter to PSRO Executive Vice President Edward J. Lynch, the Commission said the plan does not appear to violate any antitrust laws and could, "in fact, promote competition, thereby providing substantial benefits to consumers" and give health care providers a "greater incentive" to "practice in a cost-conscious manner."

The advisory opinion warned, however, that the PSRO should work to assure that the program's purpose "remains legitimate and does not produce significant anticompetitive effects." For example, it added, "you should avoid any misuse of the program to discriminate against innovative competitors."

"Baby Doe" Springs Back to Life

The Department of Health and Human Services has proposed a new version of the controversial "Baby Doe" rule requiring hospitals and clinics to post notices publicizing a 24-hour hotline to be used in cases of suspected neglect.

The procedure, rather than the substance of the rule, is changed. It still contains the requirement to post notices listing the hotline number. But instead of requiring the posting of the notice in delivery, maternity, and intensive care wards, it requires that the notice must be posted in nursing stations. The new rule will also allow a longer public comment period.

The rule's long preamble and appendix specify that federal law "does not require the imposition of futile therapies which merely temporarily prolong the process of dying of an infant born terminally ill." The rule also attempts to define the term "handicap" as disorders such as "mental retardation, blindness, paralysis, deafness, or lack of limbs."

"Any judgment that a person is not worthy of treatment due to such handicap is not . . . a medical judgment, even if made by doctors . . ." the rule says.

The original regulation was struck down in federal court. U.S. District Court Judge Gerhard A. Gesell ruled last May that the regulation was "arbitrary and capricious." The rule was a "hasty and ill-considered" response to "one of the most difficult medical and ethical problems facing our society," he said.

Meanwhile, a new Gallup Poll shows that the public is evenly divided as to what steps it would take if faced with the birth of a seriously handicapped newborn.

Of 1,540 interviewed adults, 40% said they would ask their doctor to keep the baby alive, 43% said they would request that the child be allowed to die, and 17% have no opinion.

Women, blacks, and married persons are the most likely to ask for their physician's help in keeping the baby alive. More women (43%) than men (37%), more blacks (59%) than whites (38%), and more married (41%) than single (34%) persons said that they would ask that the handicapped baby receive the surgical care necessary for survival.

Congress Kills Abortion Amendment

The Senate has overwhelmingly rejected an amendment by Sen. Orrin Hatch (R-UT) that declared "the right to abortion is not secured by this Constitution." The amendment fell short of the necessary two-thirds vote, with 49 senators supporting and 50 senators opposing the amendment.

The purpose of the amendment, according to supporter Thomas F. Eagleton (D-MO) was to "wipe out the legal status afforded to the abortion right by *Roe* vs. *Wade* and return it to its earlier legal status, when abortion was a matter for each of the states to decide." The vote is said to have represented a serious setback for the New Right, which had placed abortion restriction on the top of its agenda of social issues.

The Senate vote is the second recent defeat for anti-abortionists. The Supreme Court earlier in June upheld the right to abortion, by ruling that second trimester hospitalization requirement placed an obstacle in the path of women seeking the procedure. In their overturn of an Akron, Ohio, abortion ordinance, the justices also indirectly overturned 33 state and city laws.

The Supreme Court's reaffirmation of the constitutional right to abortion sent shock waves through state and city governments, as legislators scrambled to rewrite their restrictive abortion laws. But the long-term effect will probably be felt most strongly in the medical community, where observers predict that pregnancies will be terminated earlier, for less money, and at greater patient convenience than ever before.

The trend was already well underway: since the early 70s, the typical abortion patient has increasingly chosen a clinic over a hospital, and has arrived there during her first, rather than second, trimester of pregnancy.

The Supreme Court's decision, however, is expected to accelerate this general movement. A second trimester hospitalization requirement places "a significant obstacle in the path of women seeking abortion," wrote Justice Lewis F. Powell, Jr., in overturning an Akron, Ohio, abortion ordinance. Because second trimester abortions cost more and are sometimes not performed in local hospitals, Akron's requirement could "force women to travel to find available facilities, resulting in both financial expense and additional health risk."

Of a law requiring recitation of anti-abortion material to a woman seeking an abortion, he wrote: "It

remains primarily the responsibility of the physician to insure that appropriate information is conveyed to his patient." Of a 24-hour waiting period, he wrote: "If a woman, after appropriate counseling, is prepared to give her written informed consent and proceed with the abortion, a state may not delay."

Although many of the Akron-like provisions of 33 state laws (22 requiring second trimester hospitalization and 11 requiring pre-abortion waiting periods) were put on hold by federal judges until the high court ruled, fear of imminent restrictions kept clinics from expanding their services.

Budget Plan Receives Congressional Stamp

Dispelling rumors that Congress would never agree on a fiscal 1984 budget, Congress has approved an $860-billion 1984 spending plan that shaves Medicare by about $400 million next year and adds $200 million to Medicaid for a children's health program.

President Reagan is opposed to the measure which includes more in tax increases and domestic spending and less in defense spending than he requested. It also sets up an $8.5-billion contingency fund to be allocated for recession relief programs only if Congress authorizes the programs. Although the budget resolution does not require the President's signature, Reagan can veto the appropriations measures Congress enacted to put the budget into effect.

All told the budget includes about $94.6 billion for health programs, with about $60.6 billion of this going to Medicare and $21.4 billion to Medicaid.

It calls for Medicare savings of $400 million next year and $1.7 billion over the next three. House members insisted on a caveat saying the cuts are not to be achieved by increasing patient coinsurance or reducing benefits, but are to come from "increased cost controls" on providers.

The budget makes no cuts in Medicaid and adds $200 million in 1984 and $950 million over the next three years in money for a Child Health Assurance Program.

It included $350 million in 1983 funds, $2 billion for 1984, and $1.65 billion for 1985 in the recession relief contingency fund for a health insurance plan for the unemployed. The money could only be spent if Congress goes ahead and authorizes a new program.

Internists Thaw to President's Freeze

Internists, who along with general practitioners see more Medicare patients than do any other physicians, say they are willing to go along with a Reagan administration proposal for a one-year freeze in Medicare's allowable charge limits on physicians.

Acknowledging that its position is at odds with that of other medical organizations, the American Society of Internal Medicine told the Senate Finance Committee recently that "in view of the current economic climate, the need to reduce federal budget expenditures, and the importance of fairly and equitably spreading the burden of budget costs," its members support a "one-year temporary freeze" in the index governing increases in the charges Medicare allows.

ASIM President Monte Malach, M.D., a private practitioner in Brooklyn, N.Y., said internists do not, however, support a Senate Budget Committee recommendation to freeze the index only for those physicians that do not accept assignment of all Medicare claims. ASIM also continues to favor an eventual repeal of the fee index.

The ASIM testimony contrasts sharply with a statement the American Medical Association submitted earlier this spring to the Finance Committee's Health Subcommittee.

"We believe it is unfair to freeze the costs of one sector of the economy while not asking attorneys, architects and other professionals to accept a similar freeze and while allowing prices paid other suppliers to rise," the statement said. Furthermore, the freeze "could be a further disincentive to acceptance of Medicare assignments" and could lead to increased costs to beneficiaries.

The National Council of Senior Citizens and the American Association of Retired Persons have also testified against the freeze on Medicare fee levels. AARP and NCSC representatives told the Finance Committee that the freeze would merely shift costs from the government to beneficiaries.

Dioxin Position Defended Before Congress

The American Medical Association reaffirmed its resolution to institute a public information campaign and update its 1981 report on dioxin in a June hearing of a House Science and Technology Subcommittee.

However, the AMA backed off of the extreme language used in clauses that precede the resolution on dioxin. The clauses that describe "hysterical malreporting" and "a witch hunt" of dioxin do not constitute official AMA policy, AMA representative John R. Beljan, M.D., told the subcommittee. Beljan, head of the panel that compiled the AMA's 1981 dioxin report, said he was concerned that "there is a broad misunderstanding of the position of the AMA."

There is still not enough evidence to prove long-term health effects of dioxin on humans, other than chloracne, Beljan said. Yet, the AMA does not "poohpooh" dioxin, and believes there is "a potential health problem," he explained.

New literature on dioxin will be reviewed in August by the AMA Council on Scientific Affairs. These findings will be presented to the AMA Board of Trustees meeting in October, with consideration by the House of Delegates at its meeting in December.

announcements

CALENDAR OF MEETINGS

NATIONAL

Sept. 29-Oct. 1	American Association for the Surgery of Trauma—Drake Hotel, Chicago
Sept. 29-Oct. 1	American Society of Internal Medicine—Hyatt Embarcadero, San Francisco
Oct. 2-5	American Neurological Association—Fairmont Hotel, New Orleans
Oct. 5-8	American Thyroid Association—Fairmont Hotel, New Orleans
Oct. 5-9	American Academy for Cerebral Palsy and Developmental Medicine—Marriott Hotel, Chicago
Oct. 13-15	Child Neurology Society—Williamsburg, Va.
Oct. 14-22	American Society of Clinicial Pathologists—St. Louis
Oct. 16-21	American College of Surgeons—Hilton, Atlanta
Oct. 21-23	American Academy of Neurological and Orthopaedic Surgeons—Caesars Palace Hotel, Las Vegas
Oct. 21-23	American Academy of Otolaryngic Allergy—Disneyland Hotel, Anaheim, Calif.
Oct. 22-27	American Academy of Pediatrics—Hilton, San Francisco
Oct. 23-27	American Academy of Otolaryngology-Head and Neck Surgery—Convention Center, Anaheim, Calif.
Oct. 23-27	American College of Chest Physicians—Hyatt Regency, Chicago
Oct. 23-27	Medical Group Management Association—Hilton, Washington, D.C.
Oct. 23-29	American College of Gastroenterology—Biltmore, Los Angeles
Oct. 24-27	American College of Emergency Physicians—Atlanta
Oct. 26-30	American Academy of Child Psychiatry—San Francisco
Oct. 27-30	American Association for Hand Surgery—Hilton, Dallas

STATE

Sept. 19-20	Tennessee Valley Medical Assembly—Chattanooga Choo Choo
Oct. 13-15	Tennessee Society of Internal Medicine and American College of Physicians, Tennessee Region (Annual Meeting)—Memphis

PRACTICE MANAGEMENT SEMINARS

Two practice management seminars are scheduled for October 6-7 at the Choo-Choo Hilton Hotel in Chattanooga. These seminars, cosponsored by the Tennessee Medical Association and the Chattanooga-Hamilton County Medical Society, will be taught by a member of the AMA Department of Practice Management. Lunch, breaks, and workbooks are included in the fee for each seminar.

"Marketing Strategies for Private Practice," a full-day workshop, will be held October 6. This seminar will offer both an overview of major health care trends and an examination of techniques now being used to improve referral patterns, maximize the efficiency of existing office procedures, and develop coordinated marketing plans for medical offices. Registration fee: $100.

"Gearing Up for Retirement," a half-day workshop, will be held October 7. This seminar will inform physicians and their spouses of the considerations in planning for retirement and in closing a medical practice due to retirement or death. Registration fee: $50 per couple (or per person if no spouse attends).

For information contact Mr. Thomas Wilkerson, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203, phone (615) 327-1451.

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga & Hamilton County Medical Society, Inc.)

CHATTANOOGA CHOO CHOO CENTENNIAL CENTER

September 19-20, 1983

MONDAY, SEPTEMBER 19, 1983

7:30 a.m. Registration

ADVANCES IN DIAGNOSIS

8:15 a.m. David V. Sheehan, M.D., Boston
"PHOEBIC DISORDERS: CURRENT PERSPECTIVES"

9:00 a.m. F. David Rollo, M.D., Ph.D., Nashville
"NUCLIDE SCANNING AS A DIAGNOSTIC TOOL, PLUS UPDATE ON NUCLEAR MAGNETIC RESONANCE"

9:45 a.m. Coffee Break—Exhibit Visitation

10:15 a.m. Robert A. Balk, M.D., Little Rock, AR
"ADVANCES IN PULMONARY MEDICINE: COPD/ARDS"

11:00 a.m. Harry A. Bernheim, Ph.D., Medford, MA
"FEVER AND ITS ROLE IN HOST DEFENSE AND SURVIVAL"

11:45 a.m. Questions and Answers

12:00 noon LUNCHEON
Studio Room, Chattanooga Choo-Choo
SPEAKER: Joe Hal Talley, M.D.
Grover, NC
SUBJECT: "DEPRESSION IN THE FAMILY PRACTICE"

ADVANCES IN THERAPEUTICS

1:30 p.m. Donald B. Louria, M.D., Newark, NJ
"CLOSING LOOPHOLES IN THE MANAGEMENT OF SERIOUS INFECTIONS"

2:15 p.m. Andreas R. Gruentzig, M.D., Atlanta
"OVERVIEW OF BALLOON DILATATION OF OCCLUSIVE ARTERIAL DISEASE"

3:00 p.m. Coffee Break—Exhibit Visitation

3:30 p.m. Barry J. Cusack, M.D., Boise, ID
"PHARMACOKINETICS IN THE AGED"

4:15 p.m. Jerome M. Feldman, M.D., Durham, NC
"DIABETES: WHAT IS BETTER TODAY THAN TEN YEARS AGO"

5:00 p.m. Questions and Answers

TUESDAY, SEPTEMBER 20, 1983

7:30 a.m. Registration

ADVANCES IN ONCOLOGY

8:15 a.m. George R. Blumenschein, M.D., Houston
"MEDICAL MANAGEMENT OF EARLY BREAST CANCER"

9:00 a.m. Eli J. Glatstein, M.D., Bethesda, MD
"THE INTEGRATION OF RADIOTHERAPY AND CHEMOTHERAPY IN THE MANAGEMENT OF SMALL CELL CARCINOMA OF THE LUNG"

9:45 a.m. Coffee Break—Exhibit Visitation

10:15 a.m. Philip Thorek, M.D., Chicago
"IMMUNOLOGY IN ONCOLOGY"

11:00 a.m. Steven E. Come, M.D., Boston
"STAGING OF LYMPHOMAS (NON-HODGKINS LYMPHOMAS AND HODGKINS DISEASE)"

11:45 a.m. Questions and Answers

12:00 noon LUNCHEON
Studio Room, Chattanooga Choo-Choo
SPEAKER: Harrison L. Rogers, Jr., M.D.
Atlanta
SUBJECT: "AMA/HEALTH POLICY AGENDA FOR THE AMERICAN PEOPLE"

ADVANCES IN SURGERY

1:30 p.m. Harold E. Kleinert, M.D., Louisville
"OVERVIEW OF WHERE MICROSURGERY IS TODAY AND WHAT CAN REASONABLY BE DONE"

2:15 p.m. William L. Donegan, M.D., Milwaukee
"CURRENT SURGICAL APPROACH TO CANCER OF THE BREAST"

3:00 p.m. Coffee Break—Exhibit Visitation

3:30 p.m. Louis G. Britt, M.D., Memphis
"CURRENT STATUS OF SOLID ORGAN TRANSPLANTATION BOTH KIDNEYS AND LIVER"

4:15 p.m. Howard W. Jones, III, M.D., Nashville
"THE PALPABLE OVARY IN THE POSTMENOPAUSAL WOMAN"

5:00 p.m. Questions and Answers

TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Sept. 15	Annual William F. Orr Lecture in Psychiatry (1 hour)
Sept. 19-23	Internal Medicine Review (40 hours)
Sept. 28-30	Recent Advances in Blood Banking
Oct. 7	Treatment of Chronic Depression (for nonpsychiatrists) (7 hours)
Oct. 13-16	International Surgical Group
Oct. 27-29	New Frontiers in Cancer, Annual Medical Alumni Reunion
Nov. 2-4	Tennessee Public Health Association Annual Meeting
Nov. 2-5	12th Annual Rhamy-Shelly Lectureship in Urology
Nov. 9-11	2nd Tennessee Perinatal Education Conference

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastrocnterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Doolcy, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.

Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D. Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

Sept. 14-15	Diabetes Mellitus: Basic and Clinical Considerations
Sept. 22-23	XV Memphis Conference on the Mother, Fetus and Newborn
Oct. 14	Child Abuse
Oct. 19-21	Cardiology Update—Chattanooga
Nov. 10-11	Sleep Disorders

Knoxville

Oct. 13-15	Obstetrical Office Ultrasound—Gatlinburg
Oct. 20-22	Cancer Concepts '83—Gatlinburg
Oct. 23-25	4th Annual Smoky Mountain Seminar in Ob/Gyn—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

BAPTIST MEMORIAL HOSPITAL

Continuing Education Schedule

Sept. 1-3	Recent Advances in Cardiovascular Surgery
Sept. 22-24	General Surgery
Sept. 30-Oct. 1	Pulmonary Update
Nov. 10-11	Sleep Disorders

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

EAST TENNESSEE STATE UNIVERSITY

Continuing Education Schedule

Oct. 18	Antimicrobial Therapy of Life-Threatening Infections—Sullins Humanities Center, Bristol, Va.
Oct. 19	Pain Management
Oct. 27-29	Anesthesiology Review Seminar—Gatlinburg
October	Family Therapy
Nov. 4-5	Asthma—Martha Washington Inn, Abingdon, Va.
Nov. 9	The Management of Stress—Bristol, Tenn.
December	Breast/Colorectal Cancer
January	Medical Updates V: A Review of Recent Advances in Medicine—Vail, Colo.

For information contact Sue Hutchinson, M.P.H., Medical Program Coordinator, Office of CME, ETSU, Quillen-Dishner College of Medicine, P.O. Box 19660A, Johnson City, TN 37614, Tel. (615) 928-6426, Ext. 204.

ST. THOMAS HOSPITAL—NASHVILLE

Oct. 14	Sleep Disorders Seminar—St. Thomas Hospital, Nashville. *Credit*: 7 hours AMA Category 1. *Fee*: $75.

For information contact Mr. George Geyerhahn, Director, Medical Learning Center, St. Thomas Hospital, P.O. Box 380, Nashville, TN 37202, Tel. (615) 386-2007.

IN SURROUNDING STATES

EASTERN VIRGINIA MEDICAL SCHOOL

Oct. 7	Selected Topics in Pediatrics (cosponsored by Children's Hosp. of the King's Daughters)—Norfolk, Va. *Credit:* AMA Category 1.

For information contact Jean E. Shelton, M.D., 800 W. Olney Rd., Norfolk, VA 23507, Tel. (804) 628-3798.

UNIVERSITY OF MISSISSIPPI

Sept. 8-9	Immobility Problems of the Hand and Splinting and Fracture Bracing—Holiday Inn Medical Center, Jackson, Miss. Credit: 5.2 hours AMA Category 1.
Oct. 6-7	Diabetes and Other Endocrine and Metabolic Disorders—Holiday Inn Medical Center, Jackson, Miss. *Credit*: 11.33 hours AMA Category 1.

For information contact Continuing Education, University of Mississippi Medical Center, 2500 N. State St., Jackson, MS 39216.

MERCER UNIVERSITY

Nov. 17-19	Conflicts with Newborns: Saving Lives, Scarce Resources, and Euthanasia—Mercer University, Macon, Ga.

For information contact Daniel D. Burke, Chairman, Department of Biology, College of Liberal Arts, Mercer University, Macon, GA 31207, Tel. (912) 744-2714.

OF SPECIAL INTEREST

AMERICAN GERIATRICS SOCIETY—WESTERN DIVISION

Oct. 28-29	Geriatric Medicine Today and Tomorrow (12th Annual Symposiumm)—Boswell Memorial Hospital, Sun City, Ariz. *Credit:* hour for hour AMA Category 1. *Fee*: $100.

For information contact Marian Richardson, Executive Secretary, Western Division of the American Geriatrics Society, 13220 N. 105th Ave., Room 12, Sun City, AZ 85351, Tel. (602) 977-1877.

PSYCHIATRIST NEEDED

Georgia/Florida. PSYCHIATRIST needed for JCAH accredited hospital for children and adolescents. Position includes diagnostic evaluations, treatment and some staff development. Strong effective staff, utilizing multidisciplinary concept. Must be licensed in Georgia/Florida and have experience with children and adolescents. Salary range: $66,000 to $84,000.

For information call or write J. Henry Evans, Administrator, 4771 Anneewakee Road, Douglasville, GA 30135, telephone (404) 942-2391.

EMERGENCY MEDICINE OPPORTUNITIES AVAILABLE

Part-time and full-time positions available throughout Middle Tennessee. Attractive features include: competitive income, professional liability insurance and flexible scheduling. Weeknight, weekday and weekend shifts varying from 12 to 60 hours available.

For complete details contact in confidence: Ms. Janice DePriest, Spectrum Emergency Care, Inc., 1355 B Lynnfield Road, Suite 184, Memphis, TN 38119, telephone (901) 323-1300.

PHYSICIANS NEEDED

Family Practitioner wanted for immediate opening in satellite clinic with hospital adjacent. Top fringe benefits. First year salary guarantee with early partnership. Must be able to obtain medical license in Alabama or Mississippi.

For complete details contact Charles D. Alderman at (601) 483-0011.

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Tom Reed
Attention: Mrs. Parton
117 East Main Street
Murfreesboro, Tennessee 37130
Telephone: (615) 890-6464

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Centrally located medical office and equipment FOR SALE. Laboratory, ultrasound, x-ray, furniture, and much other equipment. Over 2,000 square feet. Excellent for one, ideal for two, could accommodate three physicians. Superb parking. Population over 10,000; county over 37,000.

For information contact John M. Jackson, M.D., 117 W. 7th Ave., Springfield, Tennessee 37172. Phone (615) 384-4512.

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The Tennessee Medical Association along with the Tennessee Department of Health and Environment, Tennessee Hospital Association, Tennessee Academy of Family Physicians and Tennessee medical schools are sponsoring a Physician Recruitment Exchange. Approximately 50 communities from across the state will be available to discuss practice opportunities in their locale and respond to questions raised by physicians and their spouses.

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Amyloid Heart Disease—Pathology and Diagnosis

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No discussion of cardiac amyloidosis would be complete without an overview of amyloid itself. Historically, one must begin his literature review in 1848, when the mystery of amyloid and its pathogenesis was being discovered by Henry Bence-Jones, a physician to St. George Hospital of England. He published an article "On a new substance occurring in the urine of a patient with mollities ossium." Jones described his initial contact with his soon to be famous mystery compound as follows:

> On the first of November 1845 I received from Dr. Watson the following note, with a test tube containing a thick, yellow, semisolid substance—the tube contains urine of very high specific gravity; when boiled it becomes highly opaque; on the addition of nitric acid it effervesces; assumes a reddish hue, becomes quite clear, but, as it cools, assumes the consistence and appearance which you see: heat reliquefies it—what is it?[1]

Jones' analysis of the compound led to this description:

> The chemical analysis of this substance showed it to be the hydrated deutoxide of albumin, of which 66 to 97 parts were contained in every 1,000 parts of urine, an amount equal to the proportion of albumin in healthy blood; so that every ounce of urine secreted was equivalent to the loss of an equal quantity of blood.[1]

This mystery substance, which now bears Mr. Bence-Jones' name, is light chain of immunoglobin. These Bence-Jones proteins are found in the urine of multiple myeloma patients, and more importantly are found in that of some patients with primary amyloidosis. This one protein does not account for all types of amyloid, but is implicated in secondary amyloid disease of multiple myeloma and light chain primary amyloid.

Rudolph Virchow must be credited for developing the initial staining techniques for amyloid, but he was misled by their iodine staining properties to believe they were starch-like in composition,[2] resulting in his coining the term "amyloid" for the perivascular infiltrates.[2,3] The first description of amyloid cannot be ascribed to Virchow, though, since Rokitansky and Meckel are credited with its first observations.[4] Chronologically, amyloid was first observed by Rokitansky in 1842, Henry Bence-Jones described myeloma light chain in 1848, and Virchow developed the staining techniques in the early 1850s. Since that time, the classification and identification of various types and properties of amyloid have broadened our understanding of amyloid and the disease process.

The term amyloidosis encompasses a heterogenous group of disorders, some systemic and some peculiar to particular organ systems, such as cardiac amyloidosis. The primary stimulus for formation of these pathologic or putative normal aging protein deposits is not quite understood, but is related to the amyloidogenic nature of some naturally occurring body proteins. There appear

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to be two major types of amyloid classes: one type composed of Bence-Jones immunoglobin, referred to as AL (amyloid light chain), and type two, referred to as AA (amyloid associated protein). The two protein classes are antigenically distinct, with type AA manifesting a wide variety of antigenic subclasses, depending on the tissue of deposition.[5] Now that more sensitive techniques (i.e., high pressure liquid chromatography and radioimmunoassays) for the isolation and characterization of proteins are available, it has become possible to implicate many proteins in the formation of the "beta-pleated sheets" of amyloid.

The AA protein generally consists of 76 residues, and has a molecular weight of 8500.[6] Its deposition in tissue appears to be related to the acute-phase response of inflammation, which can be monitored by the well-documented C-reactive protein (CRP). CRP itself is not a constituent of the amyloid deposits, but it appears a closely related serum protein, serum amyloid protein (SAP), is. These two proteins have structural similarities and calcium dependent ligand binding. SAP is a 235,000 MW glycoprotein composed of 10 subunits arranged face to face in two pentameric discs. Approximately 60% of the known amino acid sequence of SAP is homologous to CRP, but the biological functions are clearly distinct, with SAP not being a major acute-phase reactant. Regardless of its role in inflammation, SAP appears to to have an affinity for isolated amyloid fibrils in vitro, which suggests a possible mechanism for deposition of SAP into extracellular spaces resulting in the accumulation of amyloid protein (AP).[7]

Another protein implicated in the pathogenesis of amyloid is serum amyloid associated protein (SAA). It is an apolipoprotein, associated with the HDL_2 and HDL_3 fraction of plasma and synthesized in the liver. The production of SAA is stimulated by the presence of endotoxin or etiocholanolone, thus implicating it as one of the mediators or products of the acute phase reaction. It appears that SAA is degraded to AA, which is the tissue amyloid associated protein, and it is speculated that SAA is bound to mononuclear and/or polymorphonuclear cell membranes, where a specific protease cleaves the SAA to AA.[8] This AA may accumulate in excess quantities in severe acute, or more importantly, chronic infections. This excess accumulation may account for the deposition of the amyloidogenic proteins in tissue ground space.[7-10] One possible mechanism for the deposition of amyloid is shown in Fig. 1.

The deposition of amyloid occurs in many tissues and organs in a variety of pathologic conditions. The heart is involved either as an isolated organ or in systemic inflammatory disease. The deposits of senile cardiac amyloidosis (isolated amyloid) or that of systemic (secondary) disease are generally found grossly as gray-pink, dew-drop-like subendocardial elevations, particularly in the atrial chambers. Histologically the amyloid can be found throughout the myocardium, causing pressure atrophy of the muscle and conduction system. Vascular and subpericardial accumulation may be present.[5] All of this deposition can lead to severe conduction and contraction deficits, with heart failure being the major cause of death in many systemic and senile types of amyloidosis. The amyloid deposits of senile cardiac amyloidosis are difficult to study, due to their difference from other well-characterized types of amyloid.[6] This difference in type causes isolation and characterization problems for the different protein types of senile cardiac amyloidosis.

The exact mechanism of amyloid polymerization into beta-pleated sheets is still only vaguely understood, but is believed related to specific proteases found on the cell surface of peripheral mononuclear cells. The protease resembles elastase, but this has been based only on the effects of specific enzyme inhibitors.[6] Polymerization itself is speculated to occur by binding of amyloidogenic proteins to serum or tissue ground substance proteins. This polymerization leads to the protease resistant beta-pleated sheet of amyloid and results in deposition of pathologic quantities of amyloid in the tissue.[11] Quite possibly this beta configuration is removed regularly by the body, but appears in pathologic quantities when associated with a disorder that overwhelms the removal system, or when the system itself is inefficient. It has become apparent, through the study of the various types of amyloid and various modes of pathogenesis, that amyloid accumulation is not the consequence of a single disease process.[11]

In studying the pathogenesis of cardiac amyloidosis there has been increasing evidence relating senile cardiac amyloid to a prealbumin protein.[12,13] Two distinct forms of amyloid have been reported to exist in heart tissue of elderly patients.[12] One type is referred to as isolated atrialamyloid, designated IAA, and is limited to the

atrium.[12,13] The other type is known as senile cardiac amyloid, and is seen in all chambers of the heart.[13] Senile cardiac amyloid is immunologically related to prealbumin, whereas the IAA amyloid is not.[12,13] This immunologic diversity is one of the more important reasons for not grouping amyloidosis into one disease category, but broadening the classification to include all the different modes of pathogenesis, which is dependent on each protein type.

This diverse appearance of amyloid can be appreciated on evaluation of 47 surgical series amyloid cases from Baptist Hospital in Memphis, over a ten-year period. There were 11 cases of kidney amyloid, 17 cases of skin amyloid, five cases of vascular amyloid, three cases of liver, two of the stomach, two of the mediastinal nodes, two of the bladder, and one each of the rectum, conjunctiva, synovium, and a tracheal neoplasm. Over this ten-year period there was an average of 4.7 cases per year, with all the above cases presenting as one of 30 primary cases of amyloid,

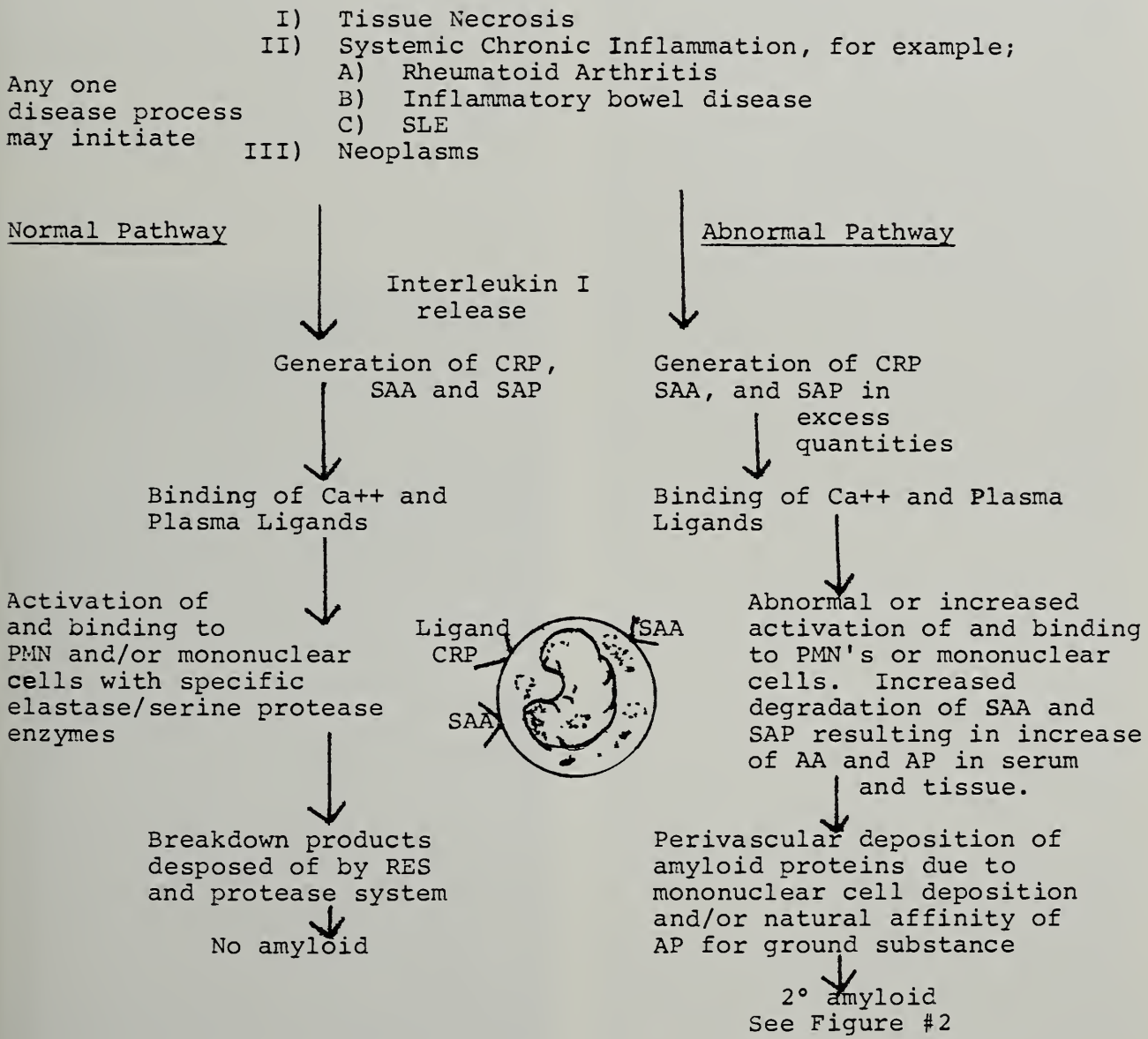


Figure 1. Possible mechanism for deposition of AA and/or AP into tissue ground substance.

ten cases secondary to neoplasia, three cases secondary to multiple myeloma, and one each secondary to systemic lupus, osteomyelitis and rheumatoid arthritis. There was a wide age range, the youngest patient being 25, with lichen amyloidosis, and the oldest being 80 years of age and having the same disorder. This diverse picture is one reason amyloid heart disease, although rare, should be considered in the elderly patient with idiopathic heart failure.[14] Cardiac amyloidosis accounts for 5% to 10% of noncoronary cardiomyopathy in the elderly with progressive and intractable heart failure, the most common manifestation of cardiac amyloidosis, although cardiac amyloidosis is not limited to the elderly, but can be seen in all ages and is strongly familial.[15] The prognosis is poor and death occurs from heart failure within a few years.

A review of ten autopsy cases of primary and secondary cardiac amyloidosis over a ten-year period (1972-1982) from Baptist Hospital, at the University of Tennessee Center for the Health Sciences in Memphis, reveal that eight of the ten cases died from cardiac failure due to the amyloid deposits. There were two cases of primary amyloidosis and eight cases of secondary amyloid. The two primary cardiac amyloidosis patients died as a direct result of the amyloid on the heart. Six of the eight secondary cardiac amyloid patients died of cardiac failure due to the amyloid, while one died of a bacterial sepsis *(Staphylococcus aureus* and *Klebsiella pneumoniae)* and the other from pulmonary emboli. Four of the secondary amyloid cases were caused by multiple myeloma. The age ranged from 50 years to 72 years with the primary cardiac amyloid disease seen in a 54-year-old and a 72-year-old.

Amyloid deposits in cardiac valves, from hearts with idiopathic heart disease, have been reported from Japan, with 29 of 67 (43%) mitral valves positive and 29 of 59 (44%) aortic valves positive for amyloid. The tricuspid valve was not involved in the five tricuspid valves examined. These valves were taken from diseased hearts of unknown valvular pathology.[16]

The type of functional pathology associated with cardiac amyloidosis has been investigated by several groups. Atrioventricular (AV) and intraventricular (IV) conduction was evaluated in familial amyloidosis in one study of 71 patients.[14,15] Out of these 71 patients 48 (67%) manifested some AV or IV conduction disturbance.[14] Abnormal EKGs were found in 62 (87%) of the 71 patients, but as mentioned earlier only 67% manifested any AV or IV disturbances. Basically there were 27 with AV block, 19 with first degree AV block, one with second degree, and seven with third degree. Intraventricular conduction defects were seen in 29 patients, and there were 19 patients with left anterior atrial blocks. Left or right bundle branch blocks together accounted for 23% of the total ventricular blocks seen.[14] Many of these patients progressed through a continued decline of conduction deficiency and eventually had pacemakers implanted.[15] This progressive deterioration of the conduction defects is characteristic of familial, secondary, and senile cardiac amyloidosis.[15] This pacemaking is worth noting in that rates set over 130 beats per minute lead to onset of Wenckebach AV block that probably represents the involvement of the AV junction by amyloid disease.[17]

Diastolic filling disturbances have also been recorded in a number of cases with cardiac amyloidosis. Patients are described as having increased right and/or left ventricular end diastolic pressures with normal or reduced chamber volumes.[18,19] The rate of filling is a newly described point in the mode of pathogenesis of amyloid heart disease. It has been implied that ventricular filling rate can be uniformly decreased in cardiac amyloidosis.[19] The increased end diastolic pressure may lead to a decreased ionotropic response by the heart, as well as putting an increased preload due to the cardiomyoatrophy related to the amyloidosis. Continued deposition of amyloid in the muscle, conduction system, and vessels of the heart can lead to a weakening of the overall cardiac contractility, resulting in severe left heart failure and its sequelae. An even more severe form of bilateral heart failure is possible. Because of the potential for treatment, cardiac arrhythmias are one of the most important developments in most cardiac amyloidosis patients.[19]

Left ventricular filling can also be used as a technique to differentiate restrictive amyloid cardiomyopathy from constrictive pericarditis.[19-21] Basically, restrictive amyloid cardiomyopathy induces hemodynamic abnormalities that closely resemble those of classic constrictive pericarditis. They are (1) increased right and left ventricular end diastolic pressures, associated with normal or reduced chamber volumes; (2) ventricular pressure curves that exhibit diastolic "dip and plateau" patterns characteristic of constrictive peri-

carditis; (3) equilibration of diastolic pressures in all chambers, characteristic of constrictive pericarditis in normovolemic patients with restrictive amyloid cardiomyopathy.[19] In order to distinguish restrictive amyloid carditis from constrictive pericarditis one must determine whether left ventricular systolic function, as judged from ejection phase or ISO-volemic function, is normal or depressed, and whether left ventricular filling rate is uniformly depressed throughout diastole or accelerated in early diastole with a later plateau.[18-20] This left ventricular filling pattern is considered indicative of restrictive amyloid carditis as opposed to normal or constrictive pericarditis.[19]

Ischemic heart disease due to amyloidosis is relatively rare, but does occur. A small group of patients described at the Johns Hopkins Hospital showed marked intramyocardial coronary arterial amyloid deposition and minimal epicardial coronary arterial involvement. The pathology of this type deposition on the heart is very similar to that seen in progressive systemic sclerosis. There can be lesions ranging from contraction band necrosis to focal fibrosis. There may be a Raynaud's phenomenon, with spasm-induced myocardial infarcts. It appears that both of these disease processes, although different in pathogenesis, produce focal myocardial "infarcts," predominantly by their effects on the smaller intramyocardial vessels.[22]

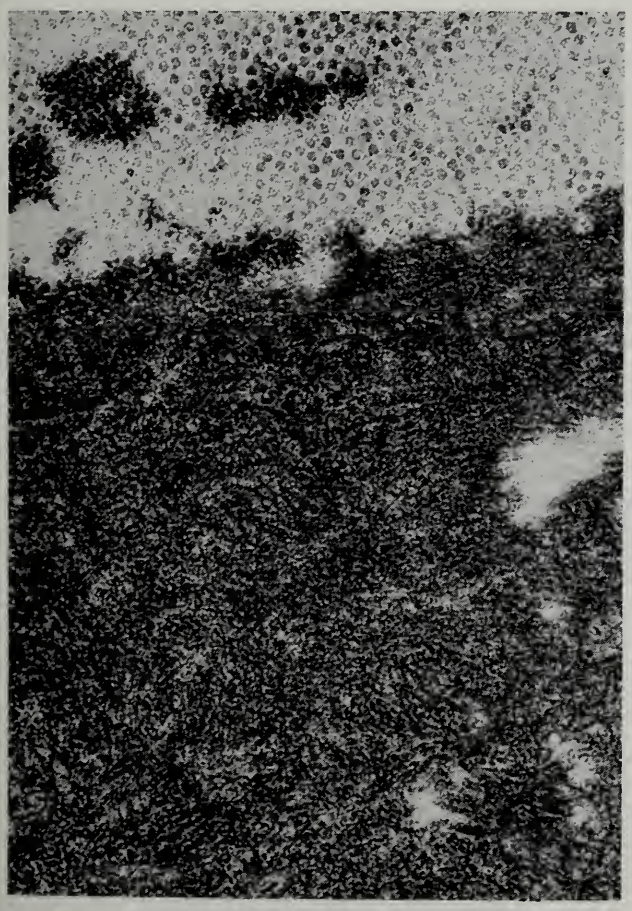


Figure 2. Transmission electron micrograph of secondary cardiac amyloid. Note infiltration of amyloid into normal collagen ground space at top of photo.

Spontaneous exercise testing is being proposed as one mechanism to unmask hidden cardiac amyloidosis. Running is believed to cause expression of amyloidosis symptoms sooner than usual by the simple mechanism of treadmill testing, which will cause asymptomatic cardiac amyloidosis to express itself as ischemic cardiac disease or nonischemic disease (i.e., arrhythmias).[23] This may prove useful in elucidating a hidden cardiac disorder, but it is not the true cause of the pathology.

Echocardiograms can be used to some extent in the diagnosis of amyloidic heart disease. The test will reveal symmetrical increase of left ventricular and septal thickness, diminished or absent systolic thickening of both the septum and left ventricular wall, and diminished left ventricular contraction resulting in generalized hypokinesia and reduced output.[14]

Angiocardiographic evaluation of the amyloid heart shows characteristic changes with markedly diminished systolic emptying of the left ventricle, which explains the reduced ejection function. Hemodynamically, the left ventricle is rigid and the name "stiff heart" syndrome appears appropriate.[14]

Recent evidence seems to indicate that technetium-99m-pyrophosphate (Tc-99m-pp) scintigraphy may be of value in noninvasive diagnosis of cardiac amyloidosis. It appears that hearts with amyloid deposits display a 4+ uptake response over normal hearts when exposed to Tc-99m-pp.[24-26] Though the value of this test is not yet available due to recentness of the observation, conclusive evaluation of its usefulness should be available within the next two years.

At present the most widely used diagnostic test available for the clinician is cardiac biopsy (unfortunately usually at autopsy) with congo red stain viewed in polarized light. If systemic amyloid disease is suspected, a gingival or rectal biopsy stain with congo red may be performed to demonstrate the green birefringence of amyloid in polarized light. Hopefully the introduction of stress testing, echocardiograms, and Tc-99m-pp

uptake will remove the need to do biopsies except in the most stubborn cases.

The pathogenesis and diagnosis of amyloid heart disease is an area worthy of medical research. The vagueness of our understanding should be incentive enough for clinicians and basic investigators to pursue knowledge in the hopes of understanding and eliminating cardiac amyloidosis, and the development of new diagnostic techniques may lead to a better understanding of its pathology.

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APRIL 1984

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11 TMA 149TH ANNUAL MEETING Hyatt Regency Hotel—Knoxville	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	NOTES				

Sigmoidoscopy

W. WADE SUTTON, SR., M.D., and G. DEWEY DUNN, M.D.

Of all the examinations performed on the human body, one of the most important for Americans in the 20th century is sigmoidoscopy. Simple instrumentation and complex physician and patient reluctance have compromised its utilization. Full utilization of the sigmoidoscopic examination should be much easier with the advent of flexible fiberoptic technology. This paper will discuss the role of fiberoptic sigmoidoscopy in primary care medicine.

There are many reasons why sigmoidoscopy is important. There is a large incidence of cancer of the distal colon and rectum which may be preventable by removal of polyps before invasive carcinoma develops.[1] The National Cancer Institute estimates 87,000 cases of colon cancer and 40,000 cases of rectal cancer will be discovered in the United States in 1983. Colorectal cancer is the second largest cause of cancer deaths with a 1978 incidence of 20 to 30 per 100,000.[2] It is estimated that 40% to 60% of colorectal cancer may occur in the first 25 cm of bowel proximal to the anus.[3,4] Carcinoma can be diagnosed and treated earlier and more specifically when sigmoidoscopy is utilized optimally.[1]

Not only patients suspected of having cancer can benefit from sigmoidoscopy. Diarrhea, suspected inflammatory mucosal disease of the colon, recent onset of constipation, and inconclusive barium studies may be clarified by sigmoidoscopic procedures. There are many patients in most primary care practices for whom flexible sigmoidoscopy performed by the primary physician represents an effective and well-tolerated office diagnostic procedure.

Flexible sigmoidoscopy is superior to rigid sigmoidoscopy.[5] It is a more comfortable examination which increases patient acceptance. Medication is unnecessary in all but the patient with severe inflammation.

The flexible examination is better because it shows a greater length of bowel that is seen from better angles by flexing the tip of the sigmoidoscope. It is generally agreed that more lesions are seen at flexible examination than at rigid examination.[5] Too many rigid sigmoidoscopies have been traumatic because of the desire to insert the "whole scope." It is a common failure to limit rigid sigmoidoscopy when the anatomy of the sigmoid colon makes comfortable 25 cm insertion impossible. Insertion of a rigid sigmoidoscope to 25 cm because "40% of colorectal cancer originates there"[3] is an inappropriate goal; the rigid sigmoidoscope cannot safely be used to the same distance as a flexible sigmoidoscope. The flexible instrument also allows a retroflexed view of the rectum, which is often helpful in detecting lesions that are easy to miss with the rigid one.

Flexible sigmoidoscopy is easier than rigid sigmoidoscopy once the physician is familiar with the procedure. It is certainly easier to see a lesion 18 cm from the anus with the fiberoptic instrument than it is to carefully introduce and lever the rigid instrument to this depth.

There are frequent indications for sigmoidoscopy in practice. The American Cancer Society has recommended screening of all patients over 50 years for malignant or premalignant disease. Adenomatous polyps are frequent at this age.[6] Their discovery should lead to referral for full colonoscopy and polypectomy. Patients who do not need full colonoscopy should have flexible sigmoidoscopy to evaluate the rectosigmoid areas that are sometimes poorly displayed on barium studies.[7,8] Patients with change in stool caliber, new lower bowel complaints, or unexplained diarrhea should have flexible sigmoidoscopy as their first examination. Any adult who is having a complete history and physical examination is a candidate for flexible sigmoidoscopy. Finally, patients with known lesions, e.g., ulcerative proctitis, in the reach of the sigmoidoscope can be easily followed with fiberoptic visualization.

Now that patient comfort and acceptance are much improved, a few words are necessary about the proper perspective regarding the limitation of flexible sigmoidoscopy. Patients with adenomatous polyps, for example, should have the entire colon examined endoscopically by a trained co-

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lonoscopist once polyps have been discovered. Multiple premalignant lesions can be missed on barium studies.[7,8] A colonscopist would be expected to detect such lesions and have the option of endoscopic polypectomy. Patients with significant enteric bleeding should also be considered for more comprehensive studies than flexible sigmoidoscopy. Frequently, a bleeding lesion in the right colon is not discovered on barium study (e.g., angiodysplasia) in a colon where severe diverticula or hemorrhoids are easily seen at flexible sigmoidoscopy, but are not the source of the bleeding. In this setting it should be clear that direct examination limited to the proctosigmoid area is not the most reasonable approach. Also, in cases of inflammatory bowel disease, there are times when examination to the cecum with transvalvular ileal biopsies or surveillance biopsies looking for noninflammatory atypia ("precancer") would be indicated. A failure to appreciate "skip areas" in Crohn's colitis, for example, might be misleading as to the true nature and extent of disease. Although flexible sigmoidoscopy is frequently useful in follow-up of rectal mucosal disease and for obtaining samples to rule out secondary pathogens, it seems clear that, at least initially, and until the diagnosis or therapy is not subject to change, more complete examination may be indicated.

A few words concerning rigid sigmoidoscopy are also indicated. It would not be proper to practice primary care without having this available. This instrument is not obsolete. There are several clinical situations where the only necessity is to see some rectal mucosa, but maximum insertion is not necessary. Patients with diarrhea, rectal trauma, foreign bodies, or low rectal lesions may need only brief procedures where the mechanical advantage of tip flexion is useless. A specific use for rigid sigmoidoscopy is to obtain the rectal biopsy to search for amyloidosis. For these occasions every medical student and primary practitioner will want to know the principles of rigid sigmoidoscopy and biopsy. The necessary equipment is inexpensive, disposable, and time efficient, and will always hold an important place in clinical medicine. At every level of training, physicians can improve their technique; primary care physicians should maintain skills in both rigid and flexible sigmoidoscopy.

The costs to the patient who does not receive flexible sigmoidoscopy or cannot accept reexamination after a poorly done first examination can be disastrous. The costs to the physician and patient for offering sigmoidoscopy are very manageable. For rigid sigmoidoscopy, the costs can be very low, almost trivial, assuming the physician's time and equipment costs are managed maximally. For those considering fiberoptic equipment there are increased costs. First, there should be no problem with medicolegal or privilege considerations. As long as the instrument is of the 30- to 35-cm length, it is difficult to imagine that anyone trusted to use the 25-cm standard rigid instrument would (after adequate training) have any question regarding his credentials to use the less dangerous and more advanced fiberoptic instrument. This argument may not be valid for longer instruments in the 45- to 60-cm range; they could be long enough to form expanding loops inside the sigmoid which could result in serosal or mucosal damage and perforation. For the 30-cm instrument with a trained operator, however, there should be only improvement over the rigid technique. This seems to be the best compromise of patient and provider benefits and risks.

The other provider costs are capital outlay and training, but neither requires excessive sacrifice. The equipment can reasonably be purchased for under $1,500 and is within reach of almost any hospital and very many medical practices. The costs in terms of training are equally reasonable. The necessary skills have been successfully taught in a family practice program,[9] and are available in short instructional courses.

In summary, flexible sigmoidoscopy is a procedure at which we can all improve and which offers substantial benefits to patients. Primary care providers should consider offering sigmoidoscopy with the 30-cm fiberoptic scope. Medical students and housestaff should be trained both in rigid and fiberoptic techniques.

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The Changing Picture of Mortality in Tennessee: The New Health Challenge

JEFFREY S. HARRIS, M.D.; ANN DEA HOGAN; and TOM SPILLMAN

Introduction

In this century, the major causes of death in Tennessee have changed dramatically. In 1917, the first year that the Tennessee Department of Health and Environment kept systematic vital statistics, the majority of the leading causes of death were of an infectious or postinfectious (e.g., rheumatic heart disease and glomerulonephritis) nature (Table 1). By 1980, improved housing, sanitation, nutrition, personal hygiene, and immunizations, as well as antibiotics and other medical care, have been associated with an absolute decrease in death rates and a decrease in the relative contribution of infectious diseases to overall mortality. Six of the ten leading causes of death in Tennessee in 1980 were diseases that develop over an extended period, diseases for the most part amenable to ameliorative care but not usually to cure (Table 2). The Centers for Disease Control have estimated that individual lifestyles account for the majority of the multifactorially caused diseases.[1,2] Since the current major killers and cripplers differ from the major causes of morbidity and mortality in the past, a new strategy is needed to prevent or control today's leading hazards to the health of the public. This report concerns the changing picture in Tennessee and offers projections to 1990.

Methods

To obtain an overview of major causes of morbidity and mortality in Tennessee today, the staff of the Health Promotion Section, Bureau of Health Services, and of the Center for Health Statistics of the Tennessee Department of Health and Environment charted death rates for the top three causes of death for all ages and for each age group from 1968 to 1980. This time period was selected because vascular and other death rates for the United States as a whole began to decline between 1964 and 1968.[3] Forward projections were made to 1990, using linear regression techniques, to obtain the rates to be expected if no new interventions were mounted to control or prevent the major diseases. Any decrease in death rates greater than that projected could then be attributed to factors other than secular trends,

TABLE 1

LEADING CAUSES OF DEATH, ALL AGES, TENNESSEE, 1917

Cause	Rate per 100,000 Population
1. Tuberculosis	198.2
2. Pneumonia	111.5
3. Organic heart disease	88.2
4. Chronic nephritis	69.0
5. Cancer	46.8
6. Diarrhea and enteritis in children less than two years of age	43.0
7. Typhoid fever	38.6
8. Measles	32.5
9. Pellagra	32.3
10. Influenza	24.4

Source: Center for Health Statistics, Tennessee Department of Public Health.

TABLE 2

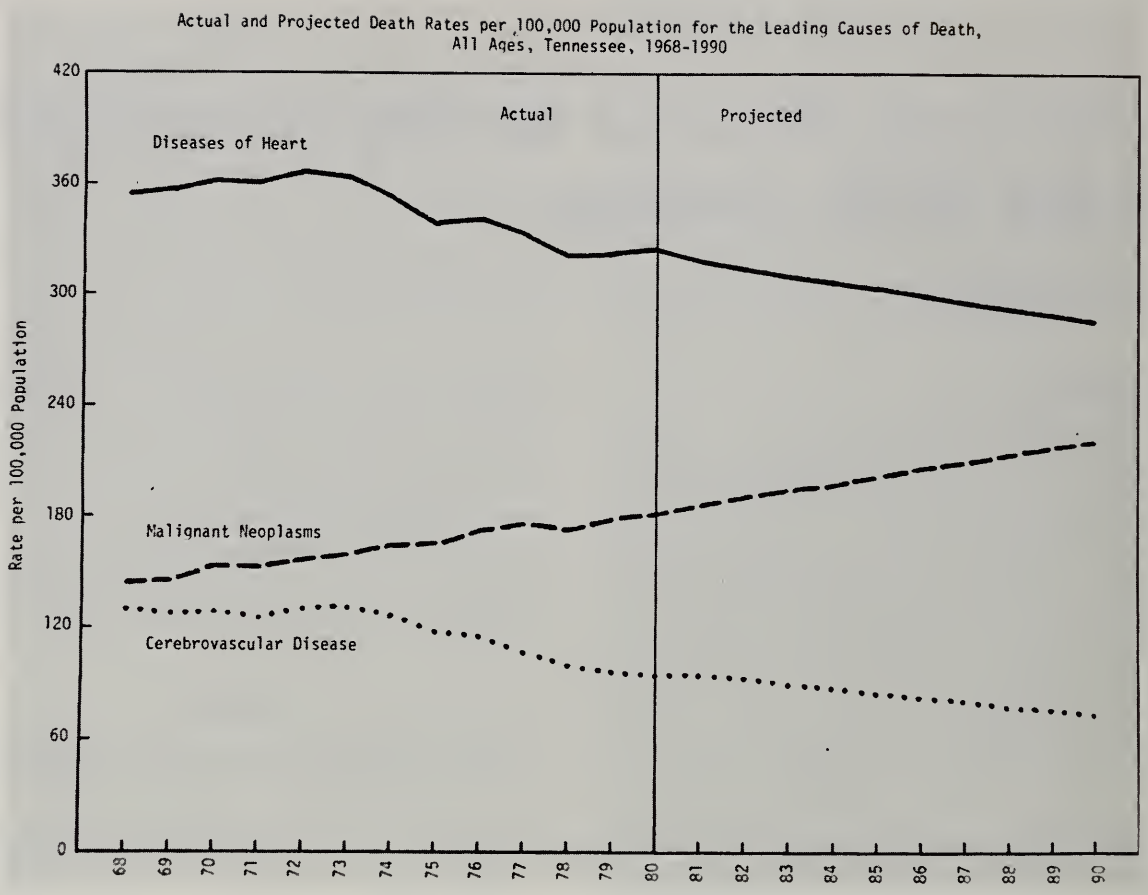
LEADING CAUSES OF DEATH, ALL AGES, TENNESSEE, 1980

Cause	Rate per 100,000 Population
1. Diseases of the heart	323.9
2. Malignant neoplasms	180.9
3. Cerebrovascular disease	93.9
4. Injuries (accidents and adverse effects)	53.4
5. Chronic obstructive pulmonary disease	26.9
6. Pneumonia and influenza	22.6
7. Atherosclerosis	12.4
8. Suicide	12.3
9. Homicide	12.0
10. Diabetes mellitus	11.2

Source: Center for Health Statistics, Tennessee Department of Public Health.

From the Tennessee Department of Health and Environment, Nashville.

Figure 1



such as planned public health or medical interventions.

Results

For all ages (Fig. 1) the death rate per 100,000 population* for diseases of the heart (ICD-9 classifications 390-398, 402, and 404-429), the leading cause of death in 1980, declined from a peak of 366.3 in 1972 to 323.9 by 1980. The projected death rate in 1990 is 286.5. In 1979, Tennessee age-specific death rates for cardiovascular disease significantly exceeded U.S. death rates in the 35-44, 45-54, 55-64, and 65-74 year age groups ($P<0.01$).

Cerebrovascular death rates (ICD-9 classifications 430-438), the third leading cause of death for all ages in Tennessee in 1980, declined from a peak of 130.4 in 1973 to 93.9 in 1980. The projected death rate in 1990 is 72.9. In 1979, Tennessee age-specific death rates significantly exceeded U.S. rates in all age categories above age 44 years ($P<0.01$).

By contrast, death rates from malignant neoplasms (ICD-9 classifications 140-208) the second leading cause of death for all ages in Tennessee in 1980, have been increasing, from 144.2 in 1968 to 180.9 in 1980. The rate is projected to increase to 220.7 by 1990. Cancer will become the leading cause of death in Tennessee by the year 2000 if current trends continue. The specific sites responsible for this increase are investigated in a separate study to be published subsequently. Briefly, it appears that a majority of the increase is due to lung cancer in specific age groups. Age-specific cancer death rates in Tennessee in 1979 significantly exceeded U.S. death rates in the 35-44 and 45-54 year age groups ($P<0.01$).

The leading causes of death by age group are shown in Table 3 and Figs. 2 through 7. Among children under 1 year of age (Fig. 2), death rates from certain conditions originating in the perinatal period decreased dramatically from 1337.4 in 1968 to 646.1 in 1980. A further decline to 297.8 is expected by 1990. Death rates from these causes were significantly lower than expected from 1974 onward, in association with the institution of regional perinatal centers.[4] Death rates in this age group from congenital anomalies dropped from 363.2 in 1968 to 284.1 in 1980. A further drop of 200.7 is projected to occur by

*Rates are per 100,000 population throughout this report.

TABLE 3

RANK ORDER OF NUMBER OF DEATHS BY CAUSE AND AGE GROUP WITH RATES PER 100,000 POPULATION, TENNESSEE RESIDENTS, 1980

Age Group	Rank Order 1	2	3	4	5	6	7	Total Deaths
Under 1 year	Perinatal Conditions	Congenital Anomalies	Injuries	Diseases of the Heart	Pneumonia & Influenza	Meningitis	Cerebro-vascular Disease	
Number	448	197	34	26	22	10	6	929
Rate	646.1	284.1	49.0	37.5	31.7	14.4	8.7	1,339.9
1-14 years	Injuries	Malignant Neoplasms	Congenital Anomalies	Diseases of the Heart	Pneumonia & Influenza	Cerebro-vascular Disease	Homicide	
Number	172	54	43	16	16	9	8	427
Rate	17.6	5.5	4.4	1.6	1.6	0.9	0.8	43.7
15-24 years	Injuries	Homicide	Suicide	Malignant Neoplasms	Diseases of the Heart	Congenital Anomalies	Pneumonia & Influenza	
Number	593	131	86	47	25	13	7	1,017
Rate	69.5	15.3	10.1	5.5	2.9	1.5	0.8	119.1
25-44 years	Injuries	Malignant Neoplasms	Diseases of the Heart	Homicide	Suicide	Cerebro-vascular Disease	Chronic Liver Disease & Cirrhosis	
Number	621	389	336	267	222	91	67	2,439
Rate	48.6	30.4	26.3	20.9	17.4	7.1	5.2	190.8
45-64 years	Diseases of the Heart	Malignant Neoplasms	Cerebro-vascular Disease	Injuries	COPD	Chronic Liver Disease & Cirrhosis	Suicide	
Number	3,202	2,877	510	424	315	249	161	9,220
Rate	357.6	321.3	57.0	47.4	35.2	27.8	18.0	1,029.7
65 + years	Diseases of the Heart	Malignant Neoplasms	Cerebro-vascular Disease	COPD	Pneumonia & Influenza	Injuries	Athero-sclerosis	
Number	11,266	4,933	3,688	897	850	607	546	26,673
Rate	2,176.6	953.1	712.5	173.3	164.2	117.3	105.5	5,153.3

1990. Injury death rates (ICD-9 classifications E800-949) in this age group also declined from 141.8 in 1968 to 49.0 in 1980; the projected rate in 1990 is 17.6. In 1980, 35.3% of these deaths were due to motor vehicle injuries.

Among children ages 1 to 14 (Fig. 3), injuries due to accidents remain the leading cause of death despite a decline in death rates from 26.5 in 1968 to 17.6 in 1980. In that year, 48.8% of injury deaths in this age group were motor vehicle-related. The age-specific injury death rate is projected to decline to 15.2 by 1990. Death rates from malignant neoplasms in this age group have remained relatively stable, fluctuating around a mean of 5.3 from 1968 to 1980. The death rate is projected to remain at 5.2 through 1990. The death rate for congenital anomalies dropped from 5.9 in 1968 to 4.4 in 1980, with rather wide interim fluctuations, ranging from a high of 6.4 in 1972 to a low of 2.9 in 1976 and 1977. The rate is projected to be 2.4 by 1990.

Among young adults ages 15 to 24 years (Fig. 4), injuries from accidents were again the leading cause of death in 1980 despite a decline in these death rates from a peak of 87.7 in 1972 to 69.5 in 1980. This rate is projected to be 63.8 by 1990. In 1980, 69.8% of injury deaths in this age group were due to motor vehicle accidents. Homicide (ICD-9 classifications E960-969) was the second leading cause of death in 1980, fluctuating from a high rate of 17.5 in 1972 to 15.3 in 1980. The rate is expected to remain stable at 13.7 until 1990. Death rates for suicide (ICD-9 classifications E950-959) increased dramatically from 4.4

Figure 2

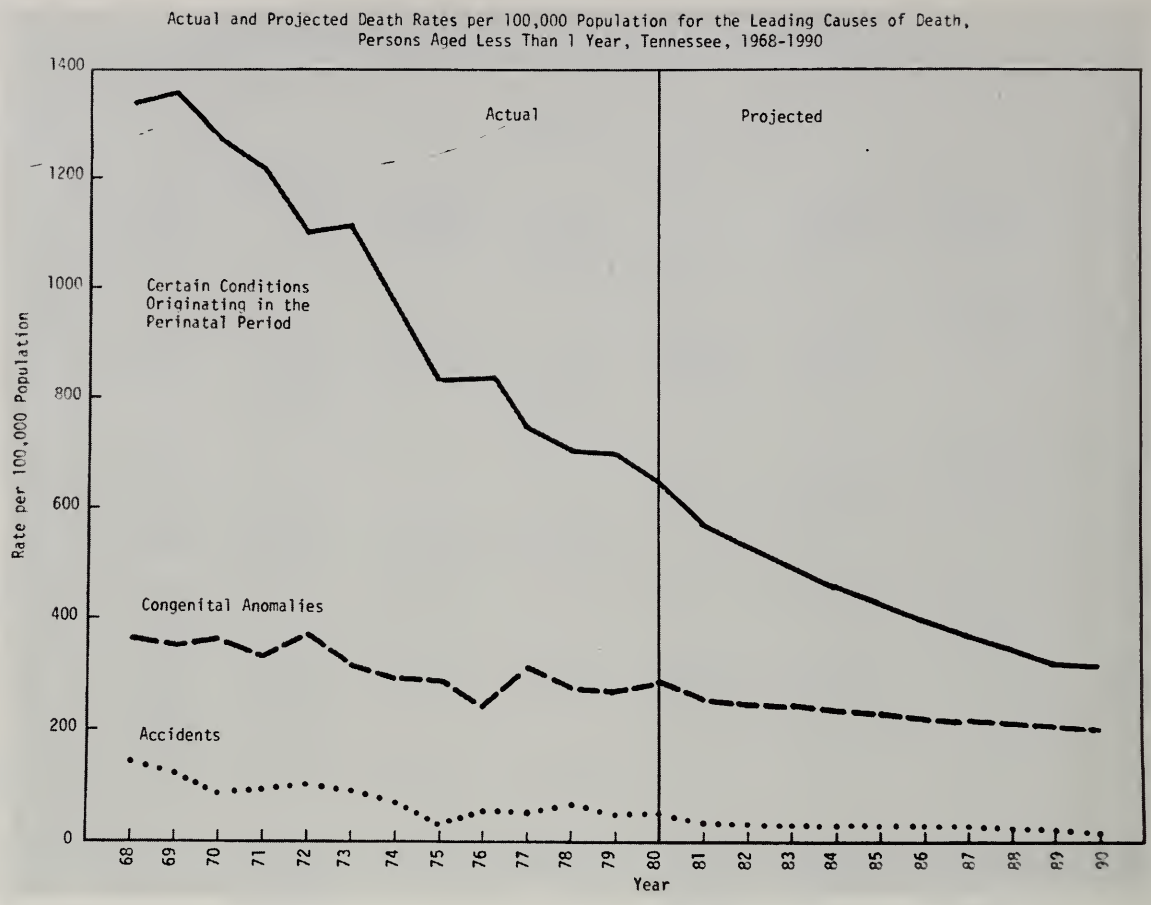


Figure 3

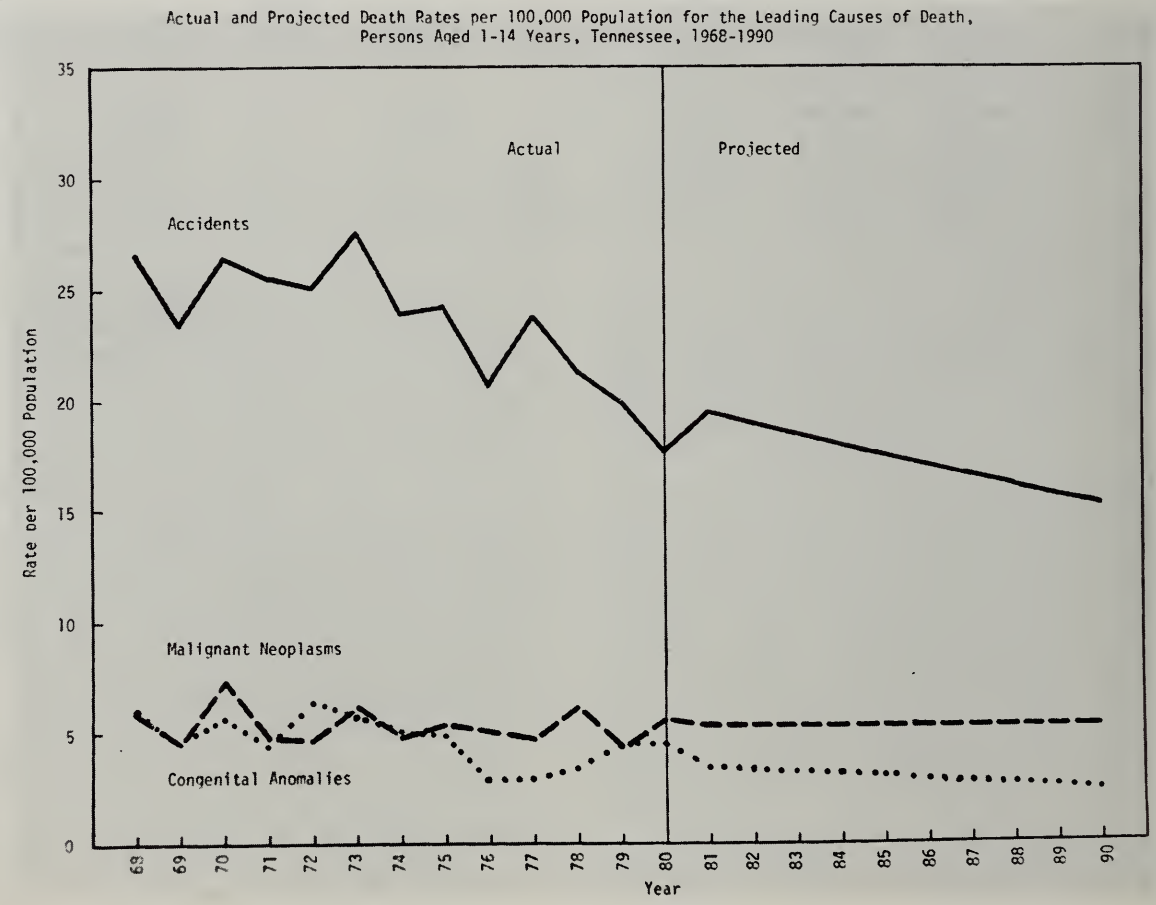
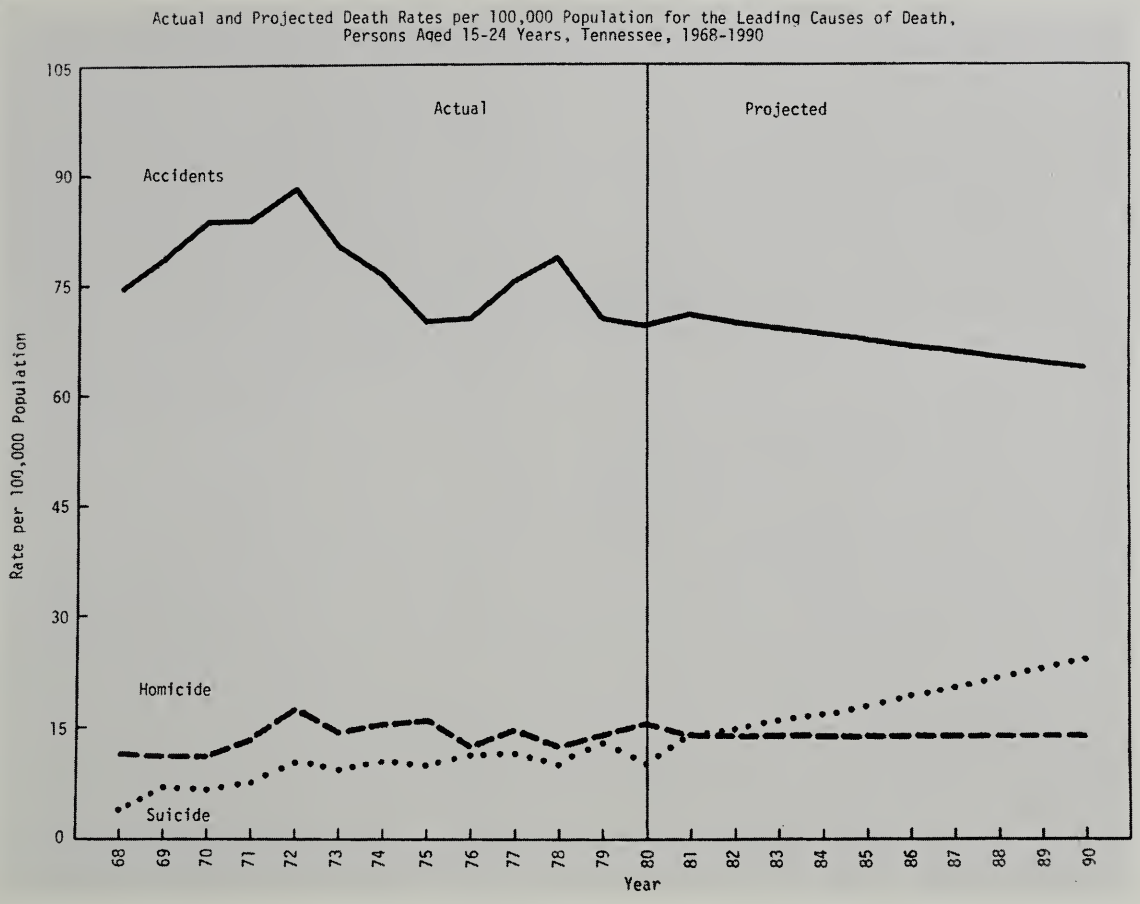


Figure 4



in 1968 to a high of 11.4 in 1977, a 159.1% rise. The rate in 1980 was 10.1, or a net increase from 1968 to 1980 of 129.5%. The projected age-specific suicide death rate by 1990 is 24.2, a 5.5 fold increase since 1968.

Injuries/accidents were also the leading cause of death in 1980 among adults ages 25 to 44 years (Fig. 5). The death rate declined from a peak of 61.7 in 1972 to 48.6 by 1980; 60.2% of injury deaths in 1980 were due to motor vehicles. The age-specific injury death rate is projected to drop to 40.0 by 1990. Death rates for malignant neoplasms, the second leading cause of death in this age group, declined from 42.5 in 1968 to 30.4 by 1980. The rate is projected to drop to 23.0 by 1990. Heart disease death rates in this age group decreased from 46.4 in 1968 to 26.3 by 1980; the rate is projected to drop to 17.5 by 1990.

By middle age (ages 45 to 64 years, Fig. 6), heart disease becomes the major risk to life in Tennessee. Age-specific heart disease death rates declined unevenly from 475.7 in 1968 to 357.6 by 1980. Even so, in 1979, death rates in this age group in Tennessee significantly exceeded U.S. rates. By 1990, the heart disease age-specific death rate is projected to drop to 273.1. The second leading cause of death among mid-life Tennesseans in 1980 was malignant neoplasms. The cancer death rate increased from 285.3 in 1968 to 321.3 by 1980. In that year, 37.6% of cancer deaths in this age group were due to respiratory cancer. These rates among 45- to 54-year-olds significantly exceeded U.S. rates in 1979 ($P<0.01$), and it is projected that the age-specific cancer death rate will increase to 357.7 by 1990, exceeding the heart disease death rate and replacing heart disease as this age group's major cause of death. Further analysis reveals that this increase is due largely to respiratory cancer (unpublished statistics, Health Promotion Section and Center for Health Statistics, 1983). Although age-specific cerebrovascular death rates declined markedly, from 108.1 in 1968 to 57.0 in 1980, these rates still significantly exceeded the U.S. rate in 1979 ($P<0.01$). The age-specific cerebrovascular disease death rate is projected to drop further to 33.3 by 1990.

Death rates among Tennesseans 65 years and older have declined for most causes (Fig. 7). Heart disease age-specific death rates dropped from a high of 2,690.7 in 1968 to 2,176.6 by 1980. For those ages 65 to 74 years, however, these

Figure 5

Actual and Projected Death Rates per 100,000 Population for the Leading Causes of Death, Persons Aged 25-44 Years, Tennessee, 1968-1990

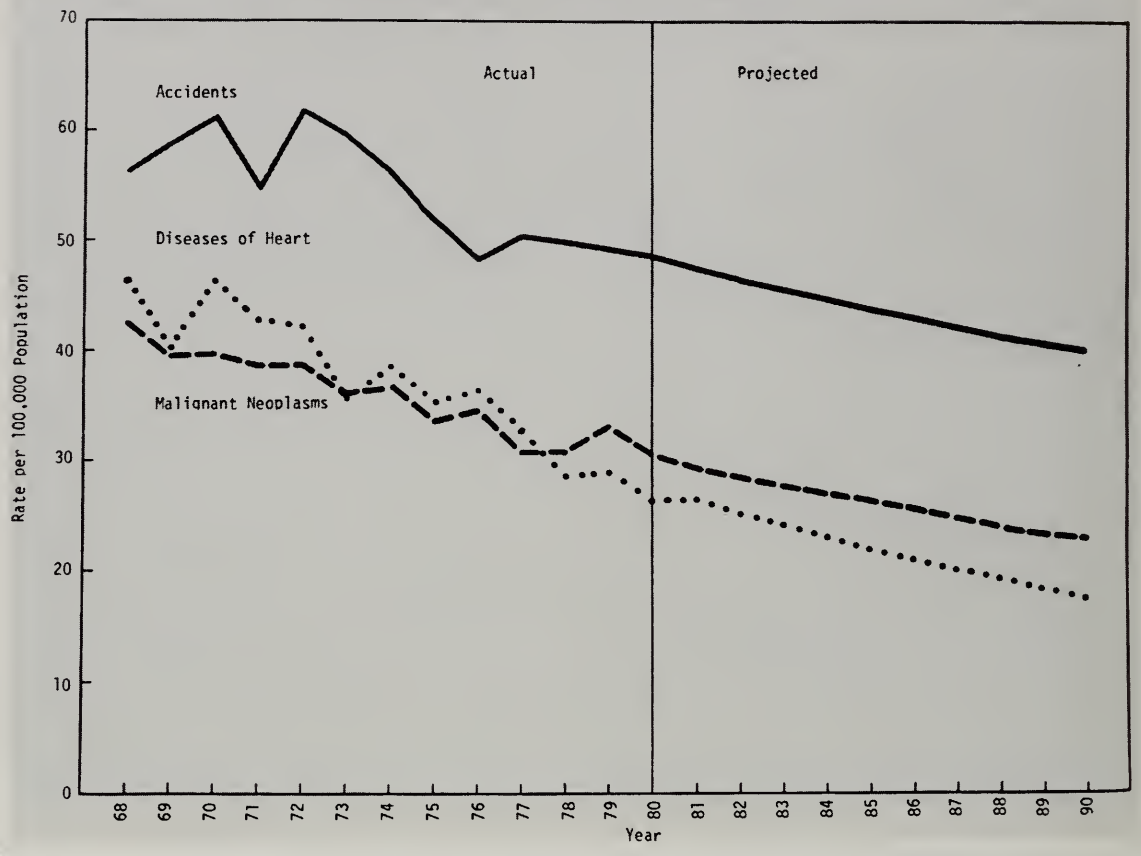


Figure 6

Actual and Projected Death Rates per 100,000 Population for the Leading Causes of Death, Persons Aged 45-64 Years, Tennessee, 1968-1990

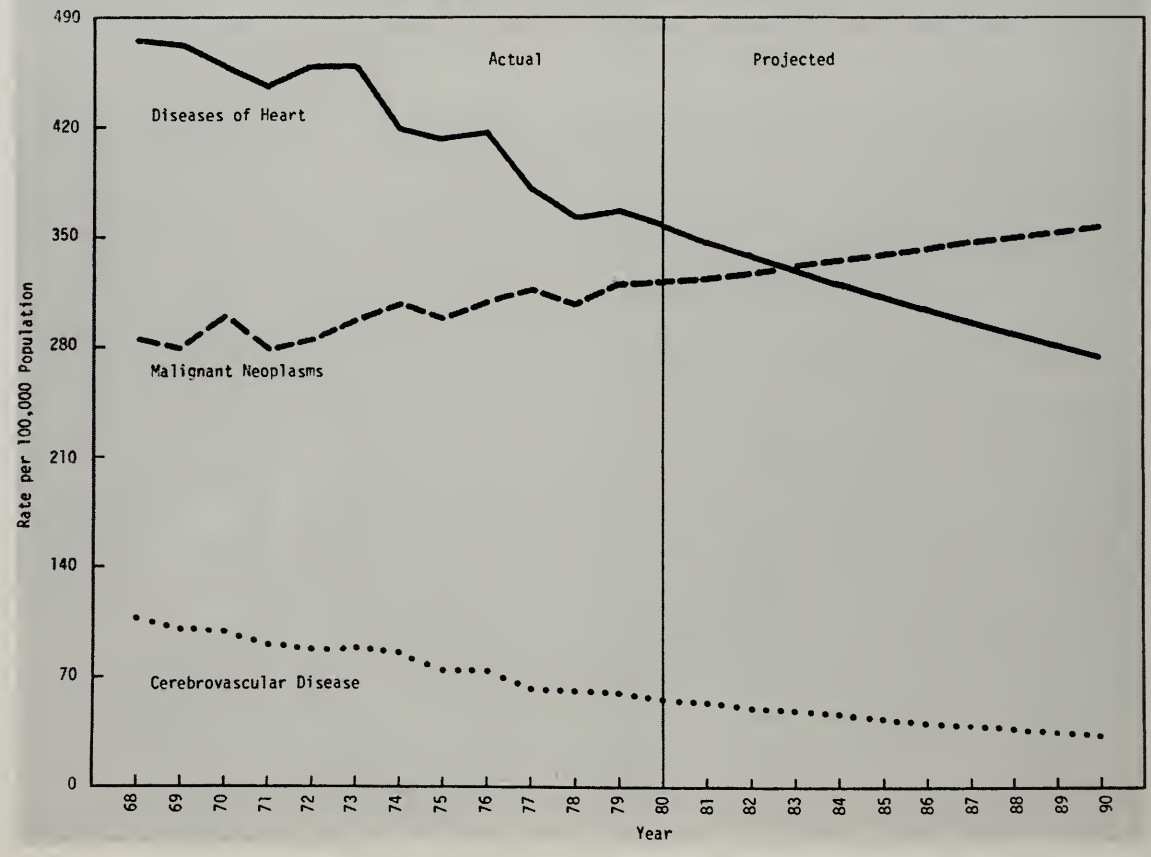
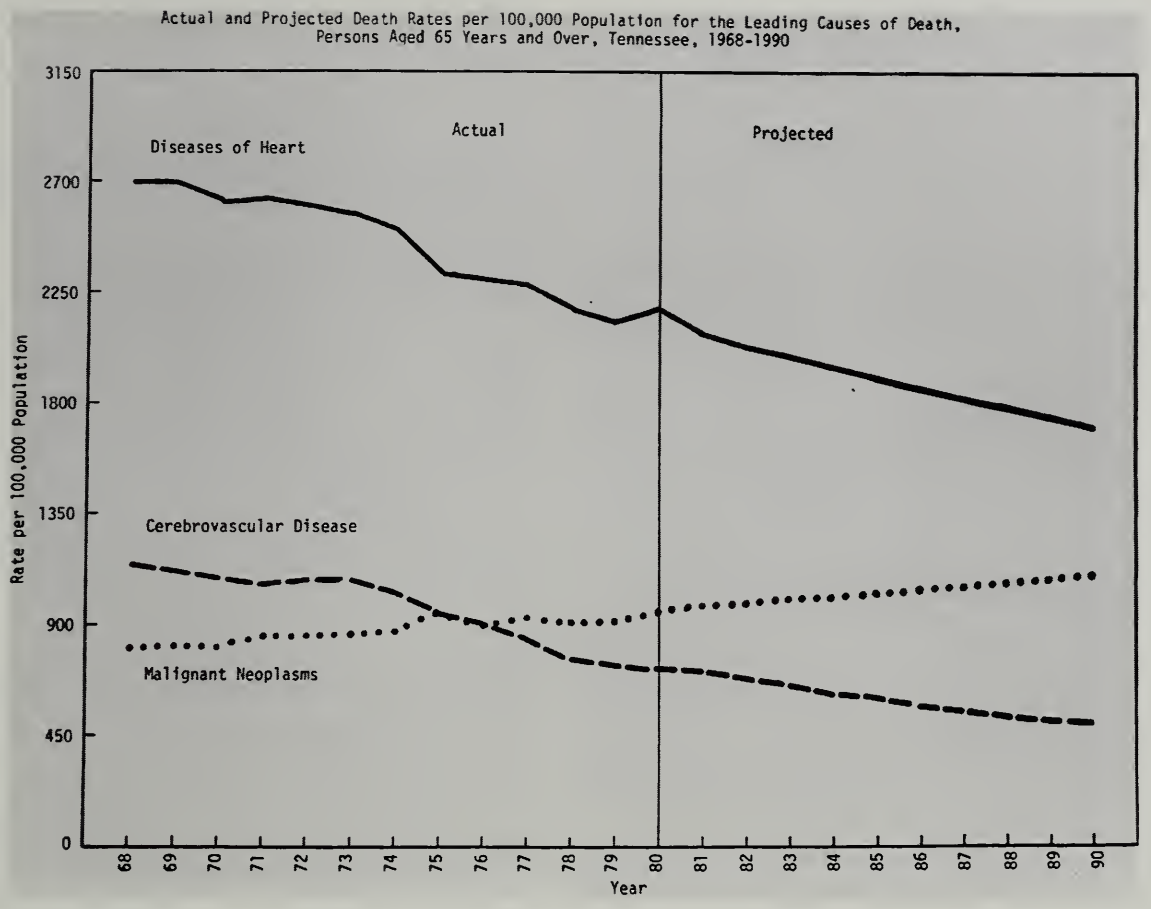


Figure 7



rates were significantly in excess of the U.S. rate in 1979. The age-specific heart disease death rate among older Tennesseans is projected to drop to 1,696.0 population by 1990. Conversely, cancer death rates in this age group rose from 810.0 in 1968 to 953.1 by 1980. By 1990, the age-specific cancer death rate is expected to be 1,092.0. The majority of these 1968-1980 deaths were due to digestive and respiratory cancer. Cerebrovascular disease death rates decreased substantially, from 1,139.6 in 1968 to 712.5 in 1980, and are projected to decline further to 488.9 by 1990. Age-specific cerebrovascular death rates for this age group in 1979 significantly exceeded U.S. rates ($P<0.01$). It is also interesting to note that in 1979, age-specific death rates for older Tennesseans exceeded national figures for injuries, influenza and pneumonia, and suicide.

Discussion

Infectious diseases have been replaced by chronic diseases and injuries as the major threats to the lives of Tennesseans. Since the late 1960s and early 1970s, death rates for all leading causes and all age groups in Tennessee have fallen, at varying rates, with the notable and alarming exceptions of cancer and suicide. The decreases in mortality have paralleled, but lagged behind decreases since 1964, in comparable U.S. mortality rates. For 1979, the last year comparable U.S. data are available, Tennessee age-specific rates significantly exceeded U.S. rates in a number of instances ($P<0.01$).

Because there has been a parallel rise and fall in risk factors for causes of death such as heart disease, cancer and stroke, it is believed that there is a causal association between life-style risk factors and mortality, and between risk factor prevalence changes and declines or increases in mortality. For example, since 1963, U.S. per capita consumption of saturated fats has declined over 25% and consumption of unsaturated fats has increased proportionately. These dietary changes have been accompanied by a decline in national serum cholesterol levels. Hypertension has been more effectively controlled, and there has been a parallel fall in cardiovascular and cerebrovascular disease mortality.[2,3]

Cancer death rates continue to rise, and if present trends continue, cancer will be the leading cause of death in Tennessee by the year 2000.

The decline in death rates due to injuries from

accidents is encouraging, but not well explained. There was a decline in deaths following enactment and enforcement of the 55 m.p.h. speed limit. Automobiles have more safety features, and child safety restraint use is more common; there is stricter enforcement of "driving under the influence" laws. There are other contributing factors, of course.

The fall in influenza and pneumonia death rates has accompanied an increase in immunizations and a fall in the major predisposing factor of cigarette use among older citizens, but chronic obstructive pulmonary disease (COPD) death rates appear to be rising nationally, presumably as an end stage result of long-term cigarette use.

There is as yet no good explanation for the rise in the suicide death rate, but it deserves serious attention and improved intervention.

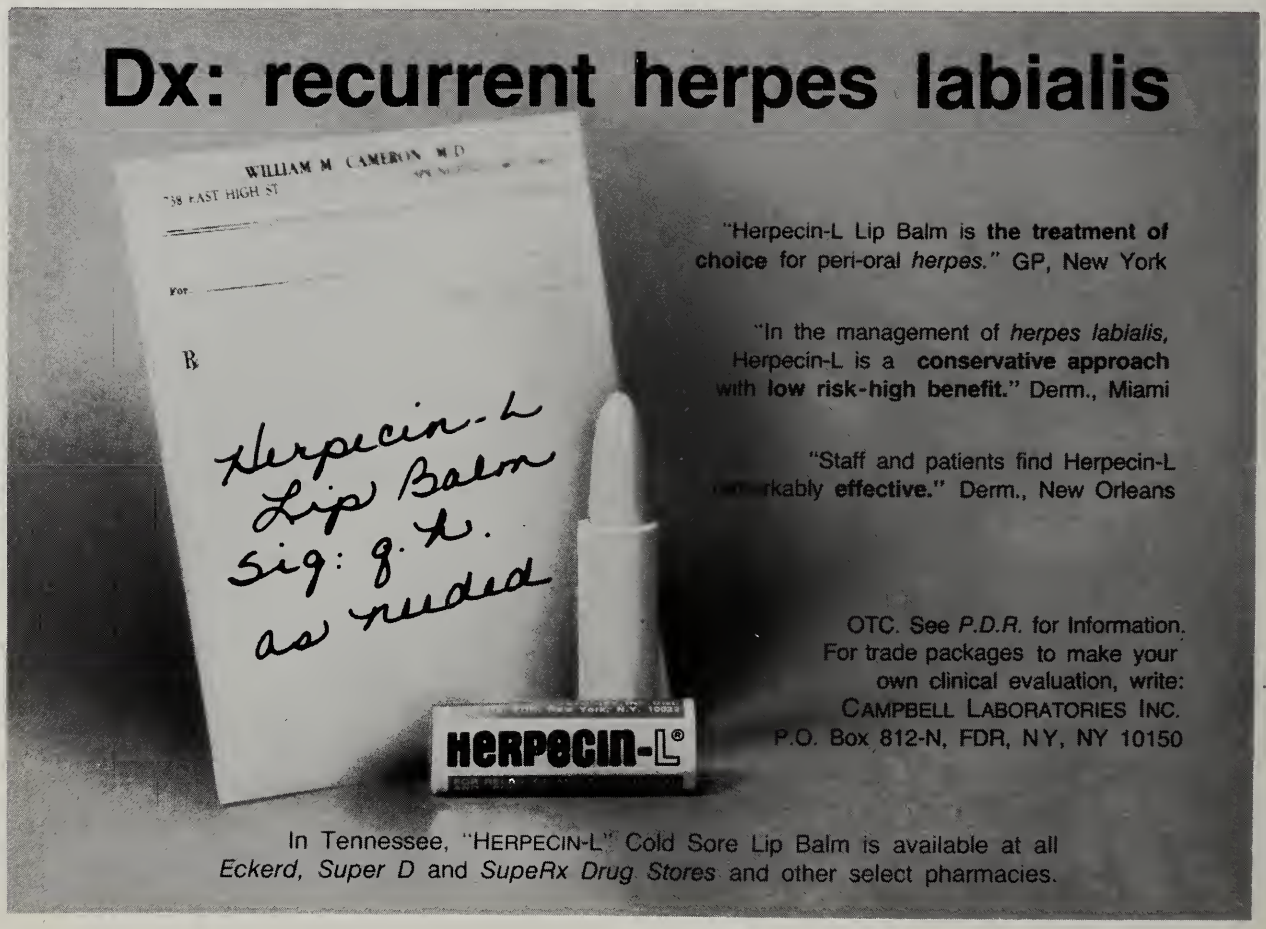
These data suggest that a new strategy is needed to stem the increase in cancer and suicide deaths and to accelerate the decrease in vascular, accidental injury, and other deaths. This strategy would logically involve educating the public, encouraging patient self-responsibility, and facilitating life-style changes.

The opportunity for the medical community to help prevent unnecessary deaths from life-style-related diseases is great. Physicians are repeatedly listed as the major resource of health information and assistance available to individuals. If Tennessee physicians were to redouble their efforts to discourage smoking and improper alcohol use and to encourage diet change, hypertension control, weight loss, exercise, and child safety one could anticipate a significant impact on today's major causes of death.

It should also be noted that the highest death rates from life-style-related diseases and the highest risk factor rates occur at the lowest socioeconomic and educational levels.[5] Those who work with lower socioeconomic status Tennesseans must increase their efforts to encourage risk factor reduction to avoid an increasing concentration of the burden of disease and disability among those least able to afford or cope with it.

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Drugs and the Elderly

JAMES A. GREENE, M.D.

Although persons age 65 and over constitute just over 11% of the U.S. population, they account for almost 25% of all drugs consumed.

There is a growing awareness of the special drug problems of the elderly. Many of these problems arise from the way the body handles the drug as related to its absorption, metabolism, and excretion. Also, the multiplicity of drugs needed to treat the increasing illnesses and disorders common to the aging process compound the problems.

Other problems include a generally reduced income coupled with the increased expense of medicines, the desire to stretch the income by self-medication, and confusion or misunderstanding about the proper use of the drugs being taken.

Even with the most painstaking medical care, the elderly are more prone than younger patients to develop adverse reactions to drugs. Studies have shown that 70- to 80-year-old persons experience about twice as many adverse reactions as those 40 to 50 years old. Based on these findings, and at the urging of the American Association of Retired Persons and the National Institute of Aging, the FDA is currently developing guidelines for clinical testing of new drugs in older persons.

The types of drug-related problems the elderly face are different from those of the younger population. The elderly are not generally smoking pot or snorting cocaine; they are taking prescribed medication for legitimate medical reasons. These drugs, however, often cause special problems for the elderly.

From the Gerontology Center. East Tennessee Baptist Hospital. Knoxville. Dr. Greene is a member of the Tennessee Medical Association Long Term Health Care Committee.

For example, some sedatives often cause stimulation, while tranquilizers often cause the elderly person to become confused, restless and even maniacal. In fact, drug effects and drug interactions are probably the second most common cause of reversible dementia, depression, or pseudodementia, being first. When combined with other sedatives or high blood pressure medication, these drugs often cause postural hypotension, which may result in dizziness and possible falls and fractures from standing too quickly.

Certain tranquilizers and antidepressants depress temperature regulation, resulting in chilling and possible hypothermia, even in a normal environment. Another effect of these drugs is constipation, a real problem for most elderly persons.

Another common problem in the elderly is digitalis toxicity, frequently combined with hypokalemia. In one study of seven nursing homes, the problem of reduced potassium in patients taking digitalis accounted for almost one-half of all the drug-related problems. The elderly patient is twice as likely to suffer bleeding from use of anticoagulants due to altered liver metabolism.

It is not only prescribed drugs that can cause problems. Aspirin often causes such severe gastritis in the elderly that bleeding occurs, resulting in anemia if not corrected. Also, some nonprescription medications taken for a "cold" can cause severe drowsiness, constipation, and blurred vision, even in normal doses.

These are but a few of the examples of drug-related problems occurring primarily in the elderly. Physicians need to remember that the elderly have special problems requiring extra precautions in assessing the need for and use of drugs in this age group.

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 72-year-old woman entered St. Thomas Hospital with severe substernal discomfort for 12 hours. In the emergency room occasional premature ventricular contractions were noted. She was placed on a lidocaine drip and transferred to a critical care area. An electrocardiogram was obtained (Fig. 1).

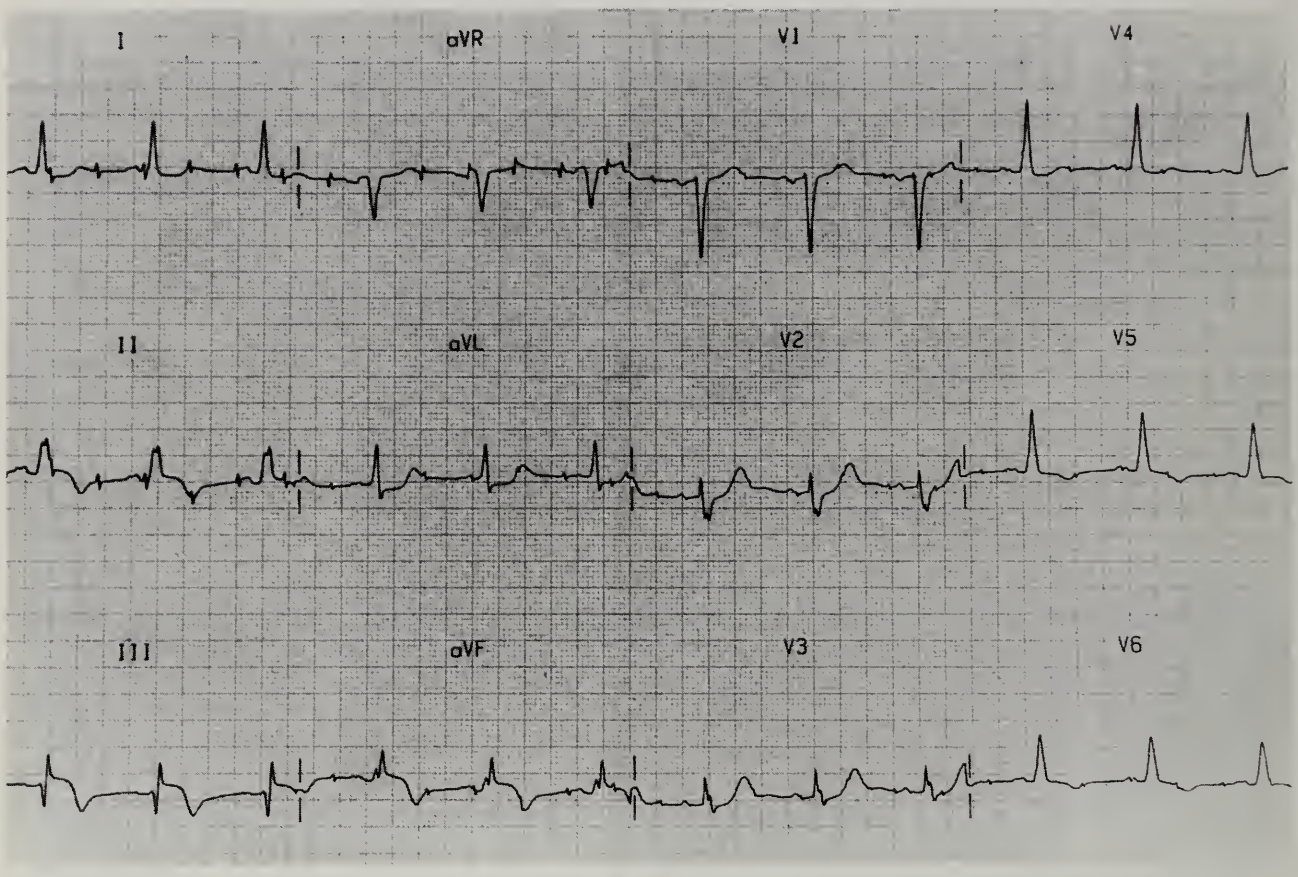


Figure 1

Discussion

The tracing shows a regular rhythm at a rate of 73/min. The P waves are inverted in V_1, are broad, and are slightly notched in the inferior leads (especially lead II). The QRS is moderately widened with a duration of 100 msec (0.10 seconds). There is prominent T wave inversion in leads II, III, aVF and in the lateral precordial leads V_5 and V_6. The tracing suggests inferior lateral myocardial injury.

Throughout this tracing regular high-frequency depolarizations occur at an interval of 0.36 seconds. They are most prominent in leads I, II and aVR although they are seen in all leads. Their sharp configuration does not resemble a P wave. The configuration appears too sharp (and too rapid) to represent diaphragmatic flutter. Depolarizations of this type are most commonly artifact. The configuration does not resemble a pacemaker spike.

This patient was receiving intravenous lidocaine with an infusion pump (IVAC-200 controller, IVAC Corp., San Diego) in the right arm. A few hours following this electrocardiogram the IV was placed in the left arm. With the infusion pump at a much slower rate a repeat electrocardiogram was obtained with the left arm electrode

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

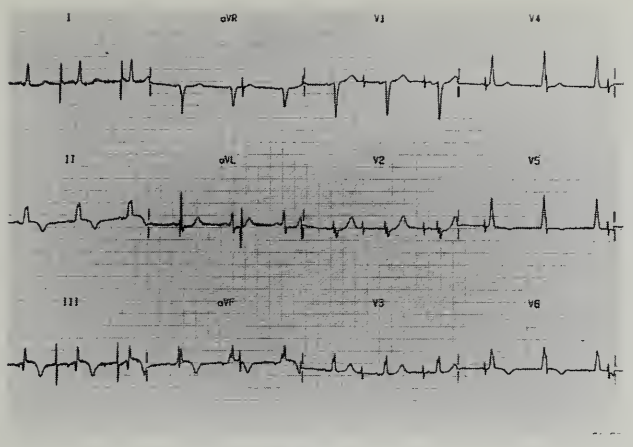


Figure 2

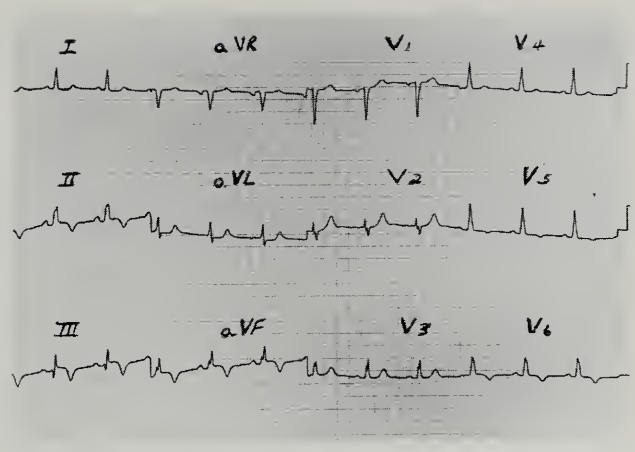


Figure 3

placed in close proximity to the intravenous tubing (Fig. 2).

In this tracing the sharp spikes are seen predominantly in leads I, III and aVL as would be expected from a left arm location. They are present throughout the entire tracing and occur at a much slower rate. The IVAC infusion pump was turned off. The electrodes were not moved and a subsequent tracing shows no evidence of the artifact (Fig. 3).

This series of tracings clearly demonstrates electromagnetic interference from an intravenous infusion pump. The voltage changes are transmitted through a column of D_5W in close proximity to the recording electrode.

CONCLUSIONS: (1) evidence of left atrial enlargement; (2) nonspecific intraventricular conduction delay; (3) inferior lateral myocardial injury; (4) electromagnetic artifact secondary to an intravenous infusion pump.

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CONTRAINDICATIONS: Hypersensitivity to Codeine-containing preparations, the potential for abuse and dependence may occur. Administration is not recommended over an extended period. In ambulatory patients, Codeine may impair mental and/or physical abilities.

Interaction with other CNS depressants (anesthetics, tranquilizers, sedatives) may exhibit additive CNS depression.

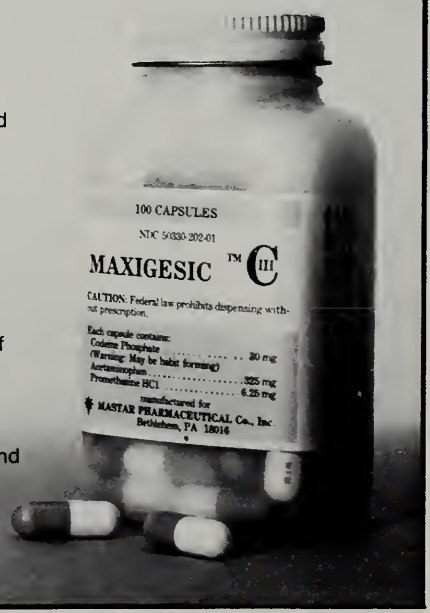
Usage in Pregnancy: Safe use has not been established in pregnant women.

Pediatric Use: Should not be administered to children under 12.

PRECAUTIONS: Increased cranial pressure may occur in presence of head injury. Promethazine should be administered cautiously to patients with cardio-vascular or liver disease. Acute abdominal conditions may be obscured. The drug should be given with caution to the elderly or debilitated, and those with severe impairment of hepatic and renal function, hyperthyroidism, Addison's disease and protatic hypertrophy or urethral stricture.

ADVERSE REACTIONS: The most frequently observed reactions include dizziness, lightheadedness, sedation nausea, vomiting and constipation.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted to severity of pain, and the response of the patient. The usual dose is in one or two capsules every 4 to 6 hours as required.



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Effects of Competition in Medicine

Introduction

In December 1981, the House adopted Report N of the Council on Medical Service (I-81).[1] The report provided a working definition of competition and described in general terms the sources and effects of increasing competition facing physicians.

In particular, the report indicated AMA's recognition of the importance of competition in promoting cost-effectiveness in the delivery of care, but emphasized that *competition in medical practice must be properly balanced with safeguards to ensure that quality of and access to care are maintained.* The Association, therefore, supports a medical practice environment which allows the number of physicians to be determined insofar as possible by market forces, but opposes unrestricted entry into practice by unqualified providers; increases price-consciousness among consumers; promotes cost-consciousness among physicians; and improves the accessibility of information for physicians and consumers. In addition, AMA policy supports the concepts of fair market competition and neutrality of public policy among alternative health care delivery systems, with the potential growth of any system determined not by preferential subsidy regulation or promotion but by the number of people who prefer that mode of delivery.

At the same time that the Council's report on competition was adopted, the House adopted Report C of the Board of Trustees (I-81).[2] Report C examined the role of health manpower trends as a cause of growing competition and reassessed AMA health manpower policies. Both the competition and manpower reports recognized that competition will necessitate adjustments by physicians to a changing practice environment. Further, the report on health manpower noted that: "The AMA recognizes that the current economic environment has caused and will continue to cause unmet expectations for many participants in the medical care sector: physicians, medical students, medical schools, the government and the public. Each of these groups seeks a satisfactory resolution of its potential problems. In particular, some would prefer that there be more direct control over the allocation and distribution of health care resources. It is preferable, however, to rely primarily on market mechanisms rather than regulatory alternatives to accommodate these often conflicting desires, and bring about an adjustment to shifting external circumstances."

This report responds to a request for further study of the effects of competition in medicine. It is part of an ongoing effort by the Council to monitor changes affecting physicians brought about by market forces. Specifically, the report examines the general effects of competition based on information gathered from practicing physicians; and changing aspects of the medical practice environment in which there are already specific indications of adjustments to increased competition, including changes in practice arrangements, relations between physicians and hospitals, reimbursement policies of third-party payors, and professional relations among physicians.

These areas encompass a broad range of policy and practical concerns of physicians. In examining these areas, emphasis is given to providing direct evidence of some of the changes that are occurring and reviewing related AMA policy and activities. Other changes for which evidence is just beginning to accumulate will be examined in future reports.

General Effects of Competition

Several trends over the last decade have produced fundamental tensions in the practice of medicine. An increasing share of resources in the economy is being devoted to medical care. Expenditures for medical services have grown relative to those for other goods and services, causing health care expenditures to increase from 7.5% of the gross national product in 1970 to 9.8% in 1981. This is causing medical care costs to come in greater conflict with other demands for resources of the economy.

At the same time, both the supply of health manpower and the practice costs of physicians have grown rapidly. Since 1970, the number of physicians in the United States has expanded by 36% compared with growth of only 8% in the total population. The share of practice revenues required by the average physician to meet expenses rose from 36% in 1970 to 44% in 1981. As a result, greater concern is developing among physicians about their ability to attract patients and maintain viable practices if these trends continue.

An *increased price-consciousness on the part of consumers* and *greater cost-consciousness by physicians* has been created by rising health care expenditures and the increased supply of physicians. These forces are the source of increased competition in medical practice. Similar forces characterize all competitive markets. In general, these forces provide the impetus for a self-adjusting process to produce services cost-effectively and distribute services to meet a broad range of different needs. The experience of other markets suggests several effects this process may have on the practice of medicine:

- The economic impact of competition will differ among physicians. Rewards are likely to be

This is AMA Council on Medical Service Report E, submitted to the House of Delegates at its Interim Meeting in December, 1982. Past House Action: A-82:37-40; I-81:25-34, 158-162; A-79:274.

greatest for those who structure their practices to provide high-quality care in the most cost-effective manner and best tailor their services to meet patient needs. Others will have their economic expectations unfulfilled.

- More aggressive efforts will be made by physicians and providers to attract patients. This may alter traditional relations among physicians, between physicians and their patients, and between physicians and other providers of health care services.
- The nature of medical practice opportunities will change. Some physicians may find the range of choices more attractive than choices available in the past, while others will regard the alternatives as less satisfactory.

Some critics have argued that competitive forces do not operate effectively in the medical care sector. Evidence presented in subsequent sections of this report suggests, however, that the market for medical services is not unlike other markets in its reponses to competitive forces.

The AMA, as indicated earlier, has expressed its support for allowing the market for medical services to function through this mechanism when accompanied by appropriate measures to assure that quality of and access to care are maintained. As part of this policy, the *AMA will respond on a continuing basis to physicians' needs for help in adapting* to the changing environment. This commitment entails the collection and dissemination of information that is needed by physicians and others to make well-informed decisions.

The AMA's new Socioeconomic Monitoring System (SMS), from which much of the data presented in this report is derived, exemplifies this commitment. SMS includes quarterly surveys of physicians on a range of medical practice indicators, such as physicians' incomes, expenses, fees, and services provided, as well as on current topics of policy concern. Survey results are reported in a newsletter, the *SMS Report*, in *AM News* and in other media to ensure wide and timely dissemination of the information collected. The program, implemented just last year, is making it possible for physicians and the Association to identify and respond more rapidly to emerging trends in the changing medical practice environment.

Changing Aspects of the Medical Practice Environment

The balance of this report discusses the four aspects of medical practice, mentioned earlier, where there is already evidence of adjustments to incresing competition.

Changes in Practice Arrangements

Increasing price-consciousness among patients and third-party payors and increasing cost-consciousness among physicians are encouraging changes and experimentation with practice arrangements which may lead to more cost-effective delivery of patient care. The growth in the number of physicians in group practice from 40,000 in 1969 to 88,000 in 1980 indicates the rapidity with which the importance of different practice arrangements may change.

Physician-owned freestanding ambulatory surgery centers and emergency centers, preferred provider organizations, and health maintenance organizations are examples of the types of change in practice arrangements fostered by competition in medical practice. As comparatively recent developments, these arrangements are not widespread. Recent SMS data show, for example, that only 3% of nonfederal patient care* physicians either perform surgery in physician-owned freestanding ambulatory surgery centers or provide care in physician-owned freestanding emergency centers. The future growth of these centers and other arrangements that may emerge will depend on their success in demonstrating the ability to provide comparable services at a cost competitive with the alternative arrangements with which they compete and their ability to gain patient and physician acceptance.

In addition to new practice arrangements emerging, many traditional solo and other small practices are undergoing change in reponse to increased competition. These changes include longer office hours, increased frequency of housecalls and reduced patient waiting times.

The AMA will continue to encourage neutral public policy and fair market competition among all health care delivery systems. The emergence of new practice arrangements, however, will require continued scrutiny to ensure that appropriate standards are maintained for providing quality care. Physicians will require information about new settings to assist them both in fulfilling their responsibility to provide safe and effective care and in adapting to a changing practice environment. The Council will continue assisting in this activity.

Relations Between Physicians and Hospitals

Significant changes are occurring in relations between physicians and hospitals as both adjust to an increasingly competitive environment. Hospitals, like physicians, are reacting to market forces by pursuing various approaches to increase revenues and control costs. While some physicians will regard changing relations with hospitals as advantageous, others will find them to be contrary to their interests. Developments in physician-hospital relations discussed below include competition in providing ambulatory services; financial arrangements between physicians and hospitals; representation of medical staff interests by hospital employed medical directors; and representation of medical staffs within the AMA.

As a means of augmenting their revenue sources, *hospitals are moving to expand their services, particularly for ambulatory care. This may cause patients to increasingly identify with hospitals rather than physicians as their source for ambulatory care.* Hospitals are, therefore, increasingly perceived as competitors by physicians. According to the most recent SMS survey, 18% of physicians regard the hospital at which they admit most of their patients as competing with them for patients. This is likely to result in discord in relations between hospitals and their medical staffs.

*Patient care physicians are those who spend more of their time in direct patient care activities than teaching, research, administration or other activities.

In a competitive environment, many hospitals and physicians will enter into financial contracts as a means of achieving some security from the uncertainties posed by a dynamic market. Approximately 155,000 patient care physicians now have financial contracts with hospitals. Over 60% of these contracts are salary arrangements. Some are contracts entered into by hospitals with physicians for the exclusive provision of services in specialized departments. Some physicians will find it necessary to enter into these arrangements as competition alters the choices available to them. Others will continue to prefer and be successful with contractual arrangements.

Nearly 50% of nonfederal patient care physicians (excluding residents) have their primary affiliation with hospitals that now have full-time paid medical directors to administer clinical and medical staff activities. This partly reflects an attempt to ease the increasing technical and administrative complexities facing medical staffs; the average physician spends 1.9 hours per week in unpaid hospital committee work.

As hospital employees, however, medical directors may align their loyalty more with hospital than medical staff interests. Recent SMS survey results suggest this is actually happening already: a substantial percent of physicians who admit most of their patients to hospitals which have full-time employed medical directors, do not believe that their medical directors represent the interests of the medical staff.

Changing relations between physicians and hospitals are causing concerns to develop among physicians regarding the freedom of patients to choose the source of their care and the freedom of physicians to provide services they are qualified to perform and choose the environment in which they practice. Difficult questions will be faced by the Association in adapting policies to changing relations between physicians and hospitals. As a result of action by the House of Delegates at the 1982 Annual Meeting, a study committee has been appointed to consider appropriate methods of medical staff representation and the possible need for a medical staff section in the House of Delegates to address these questions.

Reimbursement Policies of Third-Party Payors

Private sector health care insurers and government financing programs are under mounting pressure to devise less costly alternatives to their current programs. Current third-party plans in both the private and public sectors perform an important function in reducing individual financial risks associated with the uncertain health expenditures, including 62% of expenditures for physicians' services, were paid by third parties. In the absence of these financing mechanisms, many individuals would be deterred from seeking needed medical care. At the same time, both private and public plans contain features contributing to rising medical care costs. These features include benefit structures that do not encourage price-consciousness by patients, and methods of reimbursement for covered services that do not encourage sufficient cost-consciousness in the delivery of care.

Since these features limit medical care cost-effectiveness, they are likely to be targets for changes in financing mechanisms aimed at controlling health care costs. The AMA supports the development of financing plans that promote appropriate price-consciousness by patients and cost-consciousness by physicians. However, care must be taken to avoid approaches that control costs at the expense of the quality of and access to care.

The market process provides an effective mechanism for fostering appropriate provisions for cost-effectiveness in private health insurance plans. As the cost of private insurance rises, purchasers will search more intensively for plans that meet their requirements at lower costs. In order to attract purchasers, private insurers will have an incentive to develop approaches which hold down the cost of their plans.

A likely result of this process is that in the future private health insurance plans will include provisions for greater cost-sharing to promote greater price-consciousness among beneficiaries. An ongoing study by the Rand Corporation confirms that patients are sensitive to the price they must pay out-of-pocket for medical services. The study is based on an experiment in which 2,756 families have been enrolled in different health insurance plans possessing varying degrees of cost-sharing. Interim results show, for example, that expenditures for medical services are 50% greater for individuals in plans with no cost-sharing compared with those in plans with a 95% coinsurance rate (up to a maximum of $1,000 for all family out-of-pocket health care expenditures).[3] The effects on health status of such reduced spending have not yet been assessed.

Responses to fiscal pressures facing the Medicare and Medicaid programs will be determined by a political, rather than a market, process. The government, however, must recognize that the market process will continue to play an important role in determining the consequencess of their approaches to curbing costs.

There has been some concern that as an immediate approach to holding down Medicare and Medicaid costs, the government might adopt a strategy of not reimbursing physicians adequately for delivering services. This strategy would make it necessary for physicians to either bear this burden directly or attempt to recover unreimbursed costs by shifting them from Medicare and Medicaid patients to private payors.

In a competitive environment, the short-run consequence of this approach would be to put physicians who serve relatively more Medicare and Medicaid patients at a competitive disadvantage. In these practices, patients not covered by public payors may be forced to indirectly cover unreimbursed Medicare and Medicaid costs to a greater degree, and accordingly be driven to other physicians. In the long run, increasing numbers of physicians may become unwilling to accept patients covered by publicly financed programs and Medicare and Medicaid patients would be deterred from seeking needed care. Cost-shifting would, therefore, be detrimental to access to care for Medicare and Medicaid patients.

Third party payors are likely to propose modifications to existing methods for reimbursing physician and hospital services as a result of competitive pressures. The Council will continue to monitor new approaches that emerge and report, as necessary, on their adequacy in providing a proper balance of incentives for cost-effectiveness, quality of and access to care.

Professional Relations Among Physicians

Results from SMS indicate that since 1975, the average earnings of physicians have increased at an average rate of 8.7% a year. Market forces, however, have made it difficult for physicians to keep their earnings apace of inflation. The average real earnings of physicians, that is earnings adjusted for inflation, have actually declined slightly since 1975.

The economic impact of the increasing physician population is not, however, affecting physicians in all specialties and geographic areas equally. Newhouse et al[4] have shown that as the supply of board-certified specialists has grown, these specialists have migrated in larger numbers to small cities and towns. This has substantially reduced the percentage of towns of more than 20,000 population that are without the services of physicians specializing in internal medicine, pediatrics, radiology, and obstetrics and gynecology. These findings, which are displayed in more detail in Table 1, are consistent with the prediction that greater compe-

TABLE 1

PERCENTAGE OF COMMUNITIES WITH NONFEDERAL PHYSICIAN SPECIALTY SERVICES IN 1970 AND 1979*

	Population of Towns in Thousands						
Specialty	**2.5 to 5**	**5 to 10**	**10 to 20**	**20 to 30**	**30 to 50**	**50 to 200**	**200+**
General/Family Practice							
1970	89%	96%	99%	100%	100%	100%	100%
1979	86	96	99	100	100	100	100
Internal Medicine							
1970	17	40	69	96	100	100	100
1979	23	52	84	97	100	100	100
General Surgery							
1970	42	79	97	100	100	100	100
1979	44	77	96	100	100	100	100
Obstetrics/Gynecology							
1970	13	32	74	96	100	100	100
1979	15	35	77	97	100	100	100
Psychiatry							
1970	3	12	28	46	91	100	100
1979	9	17	40	59	96	100	100
Pediatrics							
1970	6	17	57	92	100	100	100
1979	12	25	68	92	100	100	100
Radiology							
1970	5	22	60	88	100	100	100
1979	9	30	73	97	100	100	100
Anesthesiology							
1970	11	19	34	65	90	97	100
1979	11	19	40	83	100	100	100
Orthopedic Surgery							
1970	2	6	29	67	91	100	100
1979	7	17	47	88	100	100	100
Ophthamology							
1970	4	15	54	87	100	100	100
1979	4	14	62	89	100	100	100
Pathology							
1970	1	8	36	71	95	100	100
1979	4	15	50	85	95	100	100
Urology							
1970	1	7	29	62	98	100	100
1979	2	10	47	89	100	100	100
Otolaryngology							
1970	2	9	38	85	95	100	100
1979	2	6	29	79	98	98	100
Dermatology							
1970	1	3	10	31	79	100	100
1979	1	3	15	59	96	98	100

*From Newhouse et al.[4]

tition will lead physicians to seek less "crowded" markets for their services.

Further, as the physician population grows, physicians may attempt to align by specialty to define and maintain areas of medical practice. Hospital by-laws and legal restrictions are already a focus for many inter-specialty jurisdictional disputes. At present, 18% of physicians have their primary affiliations with hospitals that have at least some department or clinical service closed to appointments of qualified new staff.

The impact of these trends will be felt most acutely by young physicians and those older physicians who wish to relocate. Any change in a physician's professional status (i.e., location or practice mode) will be accompanied by anxiety about the individual's ability to maintain sufficient access to hospital resources to sustain a viable practice.

The AMA has a commitment to helping physicians adjust to the changing professional environment. Examples of existing activities serving this purpose include the Physician Placement Service and AMA practice management seminars. As the medical practice environment changes, the AMA will have to share in the adjustment process and modify its programs to reflect the changing needs of physicians for assistance. The House will note that another report before it at this session from the Board of Trustees discusses at more length strategies and programs the Association will undertake to that end. The Council urges that, in adapting Association activities for assisting physicians, particular attention be focused on the needs of residents, other young physicians and older physicians who will feel the stresses created by increased competition most acutely. As a specific example, young physicians in a climate of growing competition will increasingly need information on terms they will be negotiating for contracts with hospitals and health care plans.

It must be recognized, however, that any assistance that AMA can provide to physicians cannot fully alleviate the stresses individual physicians will face in making decisions necessitated by the changing environment.

Regarding jurisdictional disputes among specialties, Substitute Resolution 88 (A-79) states that "it is the American Medical Association policy that individual character, training, competence, experience and judgment be the criteria for granting privileges in hospitals" and that "physicians in several specialties can and should be permitted to perform the same procedures if they meet these criteria." The Association offers many forums for discussion and resolution of jurisdictional disputes within the profession, including discussions with this, and other Councils, as appropriate. This type of positive AMA involvement will continue.

Conclusion

This report is part of the Council's ongoing study of competition in medicine. It identifies some of the current and future stresses associated with competition and communicates recent research findings with important policy implications. Critics of the market approach advocate direct government intervention for resolving problems caused by rising medical care costs and the increasing supply of health manpower. Board of Trustees Report C (I-81), however, has noted the limitations of the regulatory approach: "Under regulation the resolution of conflict is essentially political, often depending on the size of the affected group. In addition, regulation, far from eliminating adjustment problems, has frequently exacerbated them. Those physicians and providers of medical care who have experienced difficult adjustments to changing market forces should not be misled into believing tht a regulatory solution exists." A further discussion of the alternatives of competition and regulation as means for allocating resources in the health care sector is offered by Reinhardt.[5]

The Council on Medical Service will continue its study of competition and report periodically on its findings, as well as provide policy recommendations as appropriate. Future reports will discuss other areas of change such as the expanding numbers and rolls of allied health practitioners and the increasing involvement of capital-intensive and entrepreneurial entities in the health sector.

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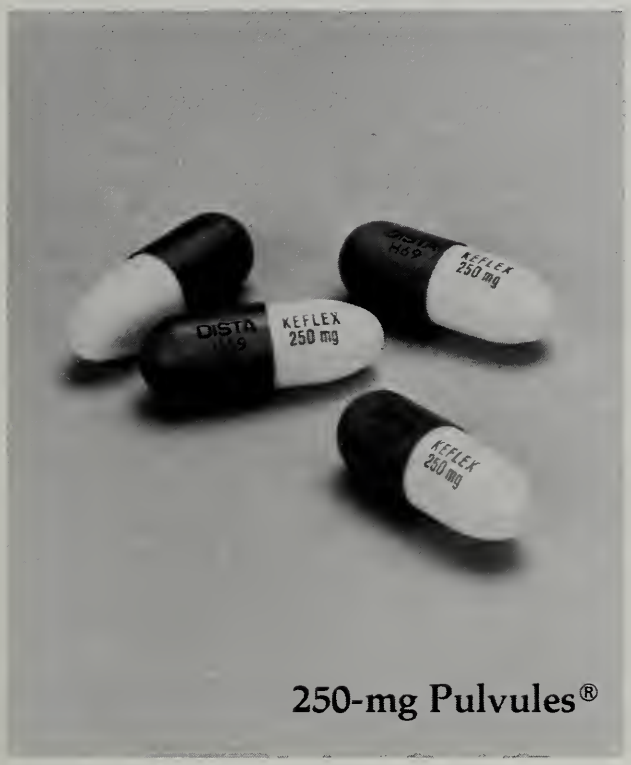
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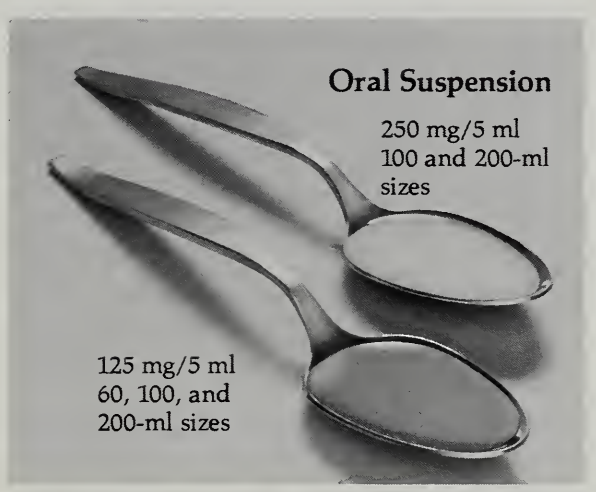
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SEPTEMBER, 1983

editorials

Friends, R.I.P.

Despite all our medical advances, and notwithstanding all our piety and wit, time continues willy nilly to deprive the world of its most useful citizens, along with those less useful and those who do little or nothing more than expand welfare rolls. Making judgments as to which individual fits into which category is risky business, as some of life's heroes remain unsung to the end. It is even riskier for an editor to single out specific individuals to memorialize. Nevertheless, it is my judgment that the process of attrition has claimed within the past month two physicians to whom a multitude owes a debt that cannot be repaid. That it cannot even be properly expressed is not going to prevent my trying.

Eugene Marshall Regen, M.D., affectionately known as Pop to several generations, and John Lawton Shapiro, M.D., shared many attributes, not the least of which was an honesty and forthrightness that commanded respect, a disarming manner of expression that invited the sharing of confidences, and a warmth that called forth and maintained steadfast friendships. Neither was infallible, of course, yet their errors of judgment were insignificant beside their uncommonly sound advice, which was sought not only by their students and colleagues, but by those in places of power in the community, their university, and the profession at large.

Each was an outstanding practitioner of his art, and both were superb teachers of medical students and residents. That their demand for excellence was coupled with an expectation that it would be forthcoming assured that they would not often be disappointed, calling forth as it did the best efforts of both students and colleagues. Nevertheless, they were tolerant of the weakness of human flesh and its foibles, and dealt with failures with sympathetic understanding. Even when on occasion censure, or rarely, even harsher methods became necessary, their application was invariably so even-handed that it seldom evoked more than fleeting wrath.

Each made major contributions to the community after his retirement from active practice. Following resection of a colon cancer that resulted in a colostomy, Pop Regen was instrumental in forming first an "Ostomy" clinic and then an Ostomy club, and for ten years, almost to his death at age 86, he was its most tireless and enthusiastic worker, instructing new owners of a colostomy in its control, and comforting them as living proof that life did not end with that acquisition. He even succeeded, with his usual enthusiasm, in convincing many that a colostomy is not a liability but indeed a convenience. For those and his other efforts the TMA named him Physician of the Year in 1977. His ministrations will be difficult to duplicate.

Even while continuing to maintain, as Emeritus Professor, an active interest in the teaching of pathology, John Shapiro drew upon his early training as a surgeon to become part-time doctor

for the Nashville Union Mission, holding sick-call several times a week for those down on their luck. It was a source of satisfaction to him, and an incalculable asset to the community that is now sadly lost. A measure of the esteem of his former students and colleagues was reflected in the breadth of the representation at a reception on the occasion of his retirement three years ago.

It would be only natural to opine that next to their families, Pop Regen and John Shapiro will be missed most by their friends. Though this is unquestionably the case, it is hard to categorize such a group. The personal magnetism of the two being what it was, the list would likely include most of those who ever had any contact, however casual, with them. I suspect their own particular genius generally made the relationship mutual.

This piece says nothing about the successful professional careers of these two remarkable individuals. Such a recitation would be redundant, even out of place, here. To say they cannot be replaced is to belabor the obvious. This tribute is not intended to recite their accomplishments, but only to record some of the reasons so many of us will miss those friends, teachers, and colleagues, so very much.

J.B.T.

World Survival: The Lust of the Eyes

Having performed its last official acts of surveillance in our solar system, *Pioneer 10* headed the other day into outer space, where, it has been surmised, the little package of earth's most sophisticated technology will outlast the earth itself—barring, of course, some accidental liaison. And why not? On the one hand, it has escaped into the void, safe from the wear and tear of atmosphere and the damage man can do it. On the other hand, our sun is an old star, and can be expected at any moment now, say in the next million or so years—only an instant by celestial reckoning—to flare up and incinerate its satellites. If by that time man is not to have perished long since, he will have to change his ways—and soon.

There is, I find, no such word as *anthropocide,* but since there ought to be, I will make one. Homicide is the killing of one human being by another. I shall define *anthropocide* as mankind killing itself. It is what man is up to; but he is up to more than that. He seems bent on taking his surroundings with him.

As the most creative of earthly beings, man seems at his best in devising means for destruction. While I think the globe itself is capable of surviving anything man can do to it, it will be just barely, as man has the capability now of reducing it to a cinder. To avoid confusion, I use "earth" here to mean what lies above the globe's topsoil. Man found out early in his career that killing can be either quick and merciful, or protracted and tortured. It would seem preferable for the earth, and possibly for man as well, if man would simply erase the slate with one swoop, since he has also devised so many ways of slowly doing in both.

There is a surfeit of verbiage these days on almost any aspect of man's inhumanity to himself and his environment. Various writers manage to fix the blame on the President, the Secretary of the Interior, the tobacco growers, the tobacco industry, the oil companies, the automobile manufacturers, the asbestos industry, and so on. Yet man continues to drive his automobiles, require long haul trucking, and use his plastic doodads, and at the same time complain of acid rain, smog, and oil slicks. He requires ever more coal, metals, and petrochemicals, while at the same time denouncing strip-mining, desecration of wilderness areas, and offshore oil drilling.

A minister once observed that when he was called to a church in Lexington, Ky. he was told he could preach on anything he wished so long as he was not critical of horse racing and whiskey. Around here, it is the tobacco growers who become defensive, although some of them do better by having their farms in the land bank than by actually growing tobacco. Certainly their farms do better. It is said that in many parts of Africa the forests are being depleted, leading to severe problems with soil erosion, by the necessity for using wood fires to cure tobacco. A study in Kenya and Tanzania found that an acre and a half of tobacco would require the same acreage of forest to produce wood for curing.

In the face of overwhelming evidence to the contrary, the tobacco industry continues to maintain that there is no proof that the smoking of tobacco causes lung cancer. It is, they say, all the other things smokers inhale. It is no absolution of the tobacco industry to opine that given the

atmospheric pollutants in even the cleanest air now on earth, it would be difficult to mount a controlled study to prove either thesis. The acid rain resulting from the combining of water in the air with the by-products of hydrocarbon combustion (including, but obviously not confined to the curing and smoking of tobacco) is destroying not only lungs but the earth as well. One most visible evidence of its effects is the condition of the monuments in our cities, stone buildings included, which are crumbling to dust. More insidious and subtle are the changes in nature, as vegetation is killed, and any streams, lakes, and ponds not already overwhelmed by waste dumping are sterilized.

It is permissible, even fashionable, to rail against gross sins. One hears much ranting these days about the immorality of nuclear war (even while the killing of the unwanted unborn is defended). The mention of lust brings to mind prostitutes, adult book stores, massage parlors and so on. It conveniently escapes us that lust is equally applicable to power, money, clothes, or anything at all. Yet it is man's lust after things—the results of his creativeness, with their promise of leisure, luxury, and power—that is leading mankind down the road to destruction.

It is much easier to blame someone else for the world's problems, and to salve the conscience with financial support of charitable projects, than to find where one's own lusts are leading the world. To do that, each individual will have to examine his every act and motive in that light.

It is not clear to me that such a pursuit would alter anything. What is clear is that by suggesting it, I have quit preaching and gone to meddling.

J.B.T.

in memoriam

Jerome Barrasso, age 56. Died July 19, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

John Kemp Davis, age 74. Died July 13, 1983. Graduate of Vanderbilt University School of Medicine. Member of Lakeway Medical Society.

Jack R. Free, Sr., age 58. Died July 8, 1983. Graduate of Emory University School of Medicine. Member of Bradley County Medical Society.

John L. Shapiro, age 68. Died July 15, 1983. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Alvin Julian Weber, Jr., age 76. Died July 2, 1983. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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Jose Dionisio DeMoya, M.D., Elizabethton
Charles Bomar Herrin, M.D., Elizabethton
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David Scott Warner, M.D., Nashville

WASHINGTON/UNICOI COUNTY MEDICAL SOCIETY
Robert J. Kasulke, M.D., Johnson City

personal news

Jeffrey Gordon, M.D., has been named to serve as chief of staff at Goodlark Medical Center in Dickson.

Frederick J. Myers, M.D. Woodbury, has been elected to Fellowship in the American College of Surgeons.

Dwight R. Wade, Jr., M.D., Knoxville, has been elected president of the state affiliate of the American Heart Association.

James Stephen Williamson, M.D., has been elected to serve as chief of staff at Carroll County General Hospital in Huntingdon.

TMA Members Receive AMA Physician's Recognition Award

Twenty-eight TMA members qualified for the AMA Physician's Recognition Award during June 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Alan M. Alabaster, M.D., Memphis
George F. Bale, M.D., Memphis
Louis J. Boelen, M.D., Johnson City
Norman M. Cassell, M.D., Nashville
Lily H. Chen, M.D., Nashville
Craig M. Coulam, M.D., Nashville
Harold C. Dennison, Jr., M.D., Nashville
Melvin L. Goldin, M.D., Memphis
James K. Goodlad, M.D., Chattanooga
George F. Gray, M.D., Nashville
Hugh E. Green, M.D., Carthage
J. Henry Hawkins, M.D., Chattanooga
Mark C. Houston, M.D., Nashville
Jerry K. Humphreys, M.D., Nashville
Charles A. Kirby, M.D., Chattanooga
A. Bernhard Kliefoth, III, M.D., Knoxville
Daniel C. Martin, M.D., Memphis
Joseph B. Miller, M.D., Memphis
David G. Petty, M.D., Carthage
Jack B. Pruett, M.D., McMinnville
Churku M. Reddy, M.D., Nashville
Ramesh K. Reddy, M.D., Decaturville
Andrew Rittenberry, Jr., M.D., Chattanooga
Marvin J. Rosenblum, M.D., Nashville
Deborah R. Sendele, M.D., Chattanooga
Medha Suwanawongse, M.D., Madison
Robert T. Tucker, Jr., M.D., Jackson
Jose A. Veciana, M.D., Martin

national news

From the AMA's Office in Washington, D.C.

Unemployed's Health Care Funding Unsettled

If the Senate Finance Committee has its way, a health plan for the unemployed will be financed by physicians and Medicare beneficiaries.

The committee voted 10 to 2 on July 13 to pay for a health plan for the unemployed by increasing Medicare Part B premiums and by freezing the maximum amounts Medicare will pay physicians for a particular service. The panel then sent the measure, which provides $1.8 billion in block grants to states, to the Senate floor.

Senate Democrats plan an all-out war on the Finance Committee measure and have vowed that no plan tying health insurance for the unemployed (HIU) to Medicare cuts will "emerge from the Senate" and Senator Edward Kennedy (D-MA) is threatening a filibuster against the measure. Even if the Senate were to pass the measure, the HIU version that was expected to come before the House of Representatives in early August does not include a financing mechanism. House agreement to the Finance Committee plan is considered unlikely. The Senate probably will not vote on HIU until after the Congress' summer recess.

The Finance Committee HIU bill would limit Medicare reimbursement to physicians by reverting to the prevailing charge limits in effect for the program prior to the annual update that took place July 1, 1983. They would be held at that level from Oct. 1 until July 1, 1984. Because the measure would limit only prevailing fees, it is less restrictive than the Reagan administration proposal to limit both prevailing and customary fees. Physician reimbursement savings in the Finance proposal are estimated at $1.375 million over the next three years.

Another $359 million in savings would come from increasing Part B premiums each year so that they always would cover 25% of the cost of the medical services reimbursed under that part of Medicare. A temporary provision setting premiums at 25% of program costs is scheduled to end Dec. 31, 1984.

The combined savings from the two proposals would finance a two-year, $1.8-billion health plan for the unemployed. States would be required to put up matching funds and means to test eligibility. Benefits could not be provided to any family with an income greater than the state's median income for similarly sized families. The state could collect up to 8% of the jobless worker's unemployment check to help pay for benefits.

Meanwhile, repeated postponements of HIU deliberations on the House floor have led to speculation that support for the measure may be cooling.

The issue is to be brought to the floor under a rule that would first bring up the House Commerce Com-

mittee's three-year, $6.8-billion entitlement plan but would then substitute a two-year, $4-billion block grant measure endorsed by the Ways and Means Committee.

Only three amendments would be permitted under the rule. Two deal with abortion. One would require an assets test for those receiving HIU benefits. No other substitutes, such as a less costly plan pushed by Rep. Thomas Tauke (R-IA), would be permitted.

The AMA has written House members urging defeat of the current rule because it is "excessively restrictive."

Medicare Index Increased July 1

The index governing increases in Medicare's "reasonable" charge limits for physicians increased by 5.85% effective July 1.

The Health Care Financing Administration estimates that unless it is repealed, the new index, published in the July 1 *Federal Register,* will increase Medicare payments to physicians by about $270 million over the year it remains in effect.

The Reagan administration had requested that the index be frozen and the Senate Finance Committee has voted to roll back the index to the pre-July 1 level.

Pacemaker Legislation Imperils Prospective Pricing

Recently introduced legislation to reduce Medicare payments for cardiac pacemaker implantations could politicize Medicare's prospective pricing system before it even gets off the ground, according to critics who include Medicare officials, hospitals, and physicians.

The legislation, introduced July 14 by Sen. John Heinz (R-PA) and Rep. Ron Wyden (D-OR), would reduce payments for cardiac pacemaker implantation to both physicians and hospitals. The hospital reductions would be achieved by lowering the rates for pacemaker implantation in the new diagnosis related groups (DRGs) payment system Medicare will begin phasing in Oct. 1.

DRG rates have not been established yet, and the American Medical Association and the American Hospital Association, among others, have claimed that lowering the pacemaker DRG rates before they are even settled on is "premature."

AMA, AHA and others fear that the pacemaker legislation, which its sponsors say could save $200 million in fiscal 1984, could be tied to the congressional budget action and move rapidly through Congress without adequate debate. To stave off that possibility, a number of the groups—including AMA, AHA, the Health Industry Manufacturers Association (HIMA), the American College of Cardiologists (ACC), and the Federation of American Hospitals—have sent letters to Congress urging that the pacemaker bill not be enacted too hastily.

Specifically, the Heinz and Wyden proposal would reduce the two DRGs associated with cardiac implantation by 15% and the two associated with reimplantation by 30%. Surgical fees would be reduced by 25%, but Medicare would pay 100% of the allowable charge, thus eliminating the current 20% patient coinsurance for the procedure.

Called the *Medicare Pacemaker Reform and Patient Protection Act,* the measure would also reduce the frequency of pacemaker monitoring. Current provisions, which are under review by the Health Care Financing Administration, permit about 12 transtelephonic monitoring sessions and from four to eight office visits per patient per year. Heinz and Wyden propose to reduce the monitoring frequency by 50% and reimbursement levels for transtelephonic monitoring by 25%.

They are also calling for the establishment of a national pacemaker registry under the auspices of the FDA. FDA ran a demonstration of this concept for several years but dropped it for lack of funding. Estimated annual cost of the registry is $1 million a year.

Wyden and Heinz are pushing their measures as an alternative to the administration's proposals to reduce Medicare spending. Congressional health committees have until late September to recommend some $400 million in Medicare cuts called for in Congress' fiscal 1984 budget resolution. Preliminary discussion in both the Senate Finance Committee, where Heinz is a member, and House Commerce health subcommittee, where Wyden serves, generated some interest in the pacemaker limits, though both panels are awaiting a Congressional Budget Office review of the legislation.

In discussions before the Commerce health subcommittee, Heinz and Wyden claimed that no further study of their proposal is needed. They say it is substantiated by the findings of a Senate Committee on Aging investigation about a year ago that concluded that "hundreds of millions of Medicare dollars are being wasted" in the $2 billion-a-year pacemaker industry.

This year, Heinz and Wyden estimate that about 150,000 Americans will have a pacemaker implanted. About 80% of these will be Medicare beneficiaries. About 30% will be receiving a pacemaker that replaces an earlier one. Rarely will Medicare collect on warranties covering some of the replaced pacemakers, they say.

The two legislators also contend that the reductions they propose are justified because: hospitals pay $3,000 to $5,000 for pacemakers which cost only $600 to $900 to manufacture; the Veterans Administration (VA) pays about 17% less per pacemaker than Medicare; surgical fees range from $750 to $2,500 and are based on earlier, riskier implant operations.

The Reagan administration does not support the Heinz and Wyden proposal, however, and HCFA Administrator Carolyne Davis, Ph.D., told the Commerce subcommittee the legislation is unnecessary because the DRG system itself will give hospitals an incentive to hold down pacemaker prices.

Davis added that the proposed reductions would

limit access to pacemakers for some patients and "unfairly penalize" hospitals that have held down pacemaker costs. An HCFA task force on pacemaker reimbursement concluded that the VA pays less for pacemakers than Medicare because the VA purchases and warehouses the devices—something Medicare doesn't want to do for its larger beneficiary population, she reported.

Meanwhile, Congress has been hearing from the health industry.

AMA Executive Vice President James H. Sammons, M.D., in a letter to Senate Finance Committee Chairman Robert Dole (R-KS) said the Heinz and Wyden provisions are "of major concern because of their impact on the availability and quality of care for Medicare beneficiaries in need of pacemakers, and because of the precedent they would establish for redefining the practice of medicine through the Medicare law."

"The regulations establishing the new system have not even been published for public comment," the letter continued. "We do not believe, therefore, that it would be well advised to start manipulating the system before it has even been structured."

The letter also said the reductions in reimbursement to surgeons improperly assumes that "all surgeons implanting pacemakers base their fees on more expensive medical technologies no longer utilized." And it warned that reduced payments to surgeons could lead to a "significant reduction in the rate of assignment for this procedure." The AMA supported the concept of a National Pacemaker Registry.

In a similar vein, the ACC wrote several congressmen that the legislation assumes that "less costly pacemakers will be as effective as the more expensive models and that current monitoring is excessive. The medical validity of the assumptions has not been determined," said the ACC which along with the American Heart Association is developing guidelines on pacemaker implants.

The AHA urged Congress to "wait until after the DRG prices are published and evaluated before considering any change in payment rate."

HIMA complained that "the proposal reaches far beyond pacemakers. It assaults the integrity of the Medicare prospective payment system."

Limits Called for on Medicare Patient Payments

A Medicare advisory panel wants to limit to about $900 a year the share of Medicare-covered hospital and physician bills paid by Medicare patients.

Medicare premiums would increase to about $420 a year, but beneficiaries would no longer need to buy private insurance to supplement their Medicare, the panel believes.

The new plan, approved by the Social Security Advisory Council, would establish new limits for both medical (Part B) and hospital (Part A) services for beneficiaries who agree to increases of about $250 a year in what they now pay for Part B. Beneficiaries who couldn't or wouldn't pay the increased premium would have to forego Part B coverage and would have new hospital cost-sharing exceeding what most beneficiaries now pay.

The Council has asked its staff to come up with a proposal for aiding those for whom the new premium would be a hardship, however, and some members are beginning to raise other questions about the plan.

The Council, chaired by former Indiana Gov. Otis Bowen, is appointed every four years to look at the Social Security program. This year it was instructed to focus on Medicare. Its recommendations were due by July 1, but the Council has been granted a three-month extension.

All the Council's recommendations are subject to further revision and some, such as the new copayment structure and changes in the physician claims assignment process, are still being fleshed out. Their implementation would require legislative action that is not considered likely in this Congress.

"Emergency" Centers Claim AMA Foul

An organization that represents about a quarter of the nation's 800 or so freestanding emergency medical care centers has asked the Federal Trade Commission (FTC) to force the American Medical Association to rescind or modify its guidelines for the operation of the emergency centers.

The Dallas-based National Association of Freestanding Emergency Centers (NAFEC) on July 13 filed a complaint asking for an FTC investigation of the guidelines, alleging that they violate antitrust law.

The guidelines were part of an AMA Board of Trustees report that was amended and approved in June by the House of Delegates. The House had called for the development of operational criteria for the rapidly growing freestanding emergency centers at its interim 1982 meeting.

John J. Coury, M.D., Chairman of the AMA Board, immediately denied the allegations in the complaint: "The guidelines approved by our House of Delegates last month were just that—guidelines," he said. "The AMA House of Delegates does not issue mandatory regulations, and the guidelines it adopted do not in any way constitute restraint of trade."

Dr. Coury also pointed out that ethical standards approved by the House state clearly that "in matters strictly of a policy nature, a physician who disagrees with the position of the American Medical Association is entitled to the freedom and protection of his point of view."

The "operational criteria" the report suggests to identify those centers which "can truly offer a full range of emergency medical services" deal with hours, staffing, equipment, and referral arrangements of the center.

In its complaint NAFEC, which prefers guidelines it has developed for its members, claimed the AMA

guidelines are "overbroad" and would make free-standing emergency centers the "equivalent of acute trauma centers." The complaint also charges that "because the AMA wields tremendous political influence, the guidelines constitute unreasonable restraint of trade and will impede the growth of FECs and deny the public cost-effective care."

The NAFEC disagrees particularly with AMA criteria requiring the centers calling themselves free-standing "emergency" care centers to stay open 24 hours a day, seven days a week, to include registered professional nurses on their staffs, to meet certain equipment requirements, including on-the-premises laboratory capability and two monitor defibrillators, and to make emergency medical services available regardless of the patient's ability to pay.

In contrast, the NAFEC guidelines call for the facility to remain open at least 70 hours seven days a week, maintain "appropriate" nursing and ancillary staff, maintain some emergency equipment, not including on-the-premises laboratory services, and provide free care only in life-threatening situations.

The NAFEC complaint was filed with FTC Commissioner James Miller and the Bureau of Economics. FTC is under no obligation to act on the complaint.

Medicare Physician Fee Freeze

Despite the concerns of the American Medical Association and fears that Medicare patients may be hurt in the process, Congress is seriously considering a Reagan administration proposal to freeze Medicare payments to physicians.

The powerful Senate Finance Committee has already approved a more limited version of the proposal and a House Commerce health subcommittee has hinted that it might move in the same direction if it could find some way to assure that physicians wouldn't simply bill their patients for fee increases not picked up by Medicare.

Under the original proposal, the economic index that governs increases in the maximum payments Medicare will make for a particular service would have been frozen for a year at the 1982/83 level. However, the index is updated on July 1 each year and rose on schedule this year by 5.85%. Any congressional action now will have to roll the index back to its 1982/83 level.

The freeze on physician fees is tempting to congressional committees charged with reducing Medicare expenditures because it is estimated to save $700 million in 1984—more than enough to meet the congressional budget resolution's mandate that Medicare expenditures be reduced by $400 million in 1984. However, the budgetmakers also say Medicare savings should not come from increased costs to patients. It is the fear that the freeze on payments to physicians may lead to cost increases for patients that raises questions about its approval.

The Finance Committee avoided the questions raised in the budget resolution directive by adopting its curbs on Medicare payments to physicians as a financing mechanism for a health plan for the unemployed instead of as a budget proposal. Several Finance members objected to the tactic but Finance Chairman Robert Dole (R-KS) reportedly wanted to expose the paradox of creating a new benefit program for one class of Americans while Congress is engaged in cutting benefits to another group.

The Finance plan also contains a significant modification. Whereas the administration's proposal would have applied to both the "customary" and "prevailing" fee limits, the Finance proposal would freeze only the "prevailing" fee limits. The practical effect of that change is to limit the freeze only to physicians charging Medicare's maximum limits rather than to all physician fees. As a result, Finance estimates savings from the proposal at only $325 million in FY 84 and about $1.5 billion over the following two years. The remainder of the $1.8 billion required to finance the health plan for the unemployed would come from increases in the Medicare Part B premiums.

The House Commerce health subcommittee is also looking at limits on Medicare payments to physicians. However, unlike Finance, the Commerce panel is considering the proposal only as part of its budget package.

Commerce subcommittee Chairman Rep. Henry Waxman (D-CA) said he believes it "is only natural that consideration should be given to controls on payments to physicians—a group which has so far largely avoided any sacrifices in the effort to reduce the federal deficit." But he added that although changes are needed in Medicare's physician reimbursement policies, the limits proposed by the administration "are really no more than back-door increases in costs to the elderly."

During a day-long hearing July 18, Waxman and other subcommittee members repeatedly asked witnesses whether the freeze on Medicare payments to physicians would result in increased costs to Medicare patients.

Health Care Financing Administration head Carolyne Davis, Ph.D., defended the freeze on grounds that Medicare physician expenditures "have been increasing by highly inflationary rates. In 1982, they increased 21% to more than $13 billion, and they are expected to rise another 19% in 1983."

Davis also maintained that freezing payments to physicians would probably have only a "minimal" impact on patients' costs. The HCFA administrator also noted that the American Society of Internal Medicine has agreed to go along with a one-year freeze and that the average physician salary was $86,000 in 1981. Medicare assignment rates have been growing as competition heats up among physicians, she told the subcomittee, so "I don't think physicians necessarily will raise their fees."

Jerald Schenken, M.D., vice chairman of the American Medical Association's Council on Legislation, disagreed. "The AMA believes it is inappropriate for the government to freeze professional payments under Medicare while at the same time allowing payments to other suppliers of goods and services to continue without a similar freeze," the Omaha pathologist asserted.

Furthermore, he observed, the freeze could be a

"disincentive to physician acceptance of Medicare." In 1982, 54.2% of total charges to Medicare patients and 52.8% of all Medicare claims were assigned, with physicians identifying inadequate Medicare reimbursement levels as a primary reason for not taking assignment. By increasing the "disparity" between what Medicare pays and what other patients are charged, the freeze could lead to changes in assignment rates and "increased costs to beneficiaries."

The administration has suggested other budget cuts including increases in the Medicare Part B deductible and premiums, both of which are supported by the AMA.

Both Waxman and Rep. Ron Wyden (D-OR) scolded the AMA for favoring increases in Medicare patients' costs while opposing a ceiling on physician fees. "We all have to make sacrifices but your testimony doesn't give the impression we're all in it together," Wyden charged.

Dr. Schenken replied that while the AMA would prefer no changes in Medicare, the program's budgetary problems necessitate cuts, and increases in Part B premiums and deductibles "create the least problems" for patients, physicians and Congress. He added that the AMA thinks the increased copayments should be offset by a new catastrophic cost benefit in Medicare.

Waxman and Wyden also pressed HCFA and AMA witnesses to cooperate in the development of directories of physicians accepting Medicare assignment.

The Finance Committee has approved a requirement that Medicare contractors develop directories identifying physicians who take at least 25% of Medicare claims on assignment. HCFA has developed a directive that would implement a similar plan as of July 1, 1984.

Davis said the HCFA directive is being reviewed by Department of Health and Human Services lawyers to make sure it doesn't embroil the department in litigation similar to an AMA and Florida Medical Association suit filed in 1978 to prevent release of a list of Medicare payments to all physicians. A Federal District Court in Florida ruled that the list was invasion of physicians' privacy. She added that identifying physicians taking assignment "part of the time" may not be particularly helpful to Medicare patients.

The Florida suit alleged that the list of physicians and salaries developed by HHS was inaccurate and Dr. Schenken expressed concern about accuracy in the proposed Medicare directories. He added that patients might erroneously assume that physicians with assignment rates lower than the 25% cutoff do not take assignment on any cases.

Waxman further prodded Dr. Schenken to promise that physicians will not increase fees to patients if Congress freezes Medicare payments to physicians.

Dr. Schenken responded that AMA President Frank Jirka, M.D., has asked physicians to "use reasonable restraint" in their fee increases and said the AMA will continue to encourage restraint. But he added that Medicare fee levels are already inadequate and said the final determination of fees is strictly up to the physician and his patient.

Waxman's panel is also looking at alternatives to the administration's freeze proposal. Possibilities suggested by committee members and other witnesses include combining the freeze with a mandate that physicians treating Medicare patients accept all claims on assignment; applying Medicare limits to only those physicians where there is a surplus supply; mandating assignment or freezing payment only for certain services such as surgical procedures; moving to negotiated fee schedules; developing financial and administrative incentives to physician assignment; paying physicians on the basis of time involved in treatment; integrating the physician payment for hospital services into the hospital diagnosis related group (DRG); and developing Medicare PPOs.

Despite the Finance Committee's action on physician reimbursement limits and the Commerce Committee's interest, final approval by Congress is far from assured. The Finance plan would have to be approved by the Senate with House concurrence for its use as funding for health insurance for the unemployed would be required. It is also possible the President would veto such a plan.

If not approved as funding for a health plan for the unemployed, a limit on physician reimbursement would once again become a budget issue subject to complaints that it does not meet the directive that Medicare cuts not affect beneficiaries. Both the House and the Senate have postponed until late September the deadline for committees to complete action on 1984 budget recommendations.

Baby Doe—Again

If the government has its way, hospitals will once again be required to post warnings that it is illegal to withhold medical treatment from handicapped newborns.

After months of deliberation, the Department of Health and Human Services this month unveiled its new version of the controversial "Baby Doe" rule that was struck down in court this spring.

Critics of the rule charge that nothing substantial has changed. Instead of requiring the posting of the notice in delivery, maternity, and intensive care wards, the rule requires that the notice be posted in nursing stations and the rule-making period for public comment has been extended to 60 days, instead of the previous 15 days.

"The changes don't obviate our concerns with the substance of the rule," said Elizabeth B. Derter, an attorney representing the American Academy of Pediatrics, which successfully challenged the original rule. "The actual rule has not changed at all," she said.

Only the new rule's long preamble and appendix make concessions to physicians' concerns. "(Federal law) does not compel medical personnel to attempt to perform impossible or futile acts or therapies. It does not require the imposition of futile therapies which merely prolong the process of dying, such as a child born with anencephaly or intra-cranial bleeding," it says. Nor does it interfere with routine medical judgments about care of premature or low birth weight infants, the rule says.

However, a rule is needed when nonmedical, or

"subjective," choices arise, it says. Judgments not to treat an infant because of race, physical disability, or mental handicaps are not medical judgments, it adds. "Any judgment that a person is not worthy of treatment is not a medical judgment, even if made by physician."

Pertussis Vaccine

The diphtheria-tetanus-pertussis (DPT) vaccine was cast into the national limelight last year with the airing of the controversial television documentary "DPT: Vaccine Roulette." Footage of writhing, brain-damaged children sent thousands of parents to their pediatricians, questioning the need for the mandatory shot. Some parents, seeing the program, reasoned that the risks of the vaccine outweigh its benefits.

A new Public Health Service report now recommends investigation and eventual improvement of the vaccine, with compensation for vaccine-injured persons in the meantime.

The government report, unveiled last month before a hearing of the Senate Committee on Labor and Human Resources, recommends establishing risk-benefit discussions between parents and physicians; monitoring incidence and severity of vaccine side effects; reporting all side effects to manufacturers and the Centers for Disease Control; accelerating the development and testing of improved vaccines.

The new report's urging of government support—through grant contracts and NIH vaccine evaluation units—may accelerate the search for a better vaccine. Three commercial vaccine manufacturers are now attempting to acquire a new Japanese acellular vaccine, or at least the vaccine's manufacturing process; others are considering U.S. development of a similar product. In the future, manufacturers hope to produce more specific and highly purified proteins for use as immunogens.

Federal compensation for vaccine-related injuries is also suggested by the report. Supporters of a compensation program have long argued that the public, not the individual, benefits from mandatory vaccination programs, so the public should be prepared to pay for any injuries an individual may experience. But for the first time, the PHS recommends that the Department of Health and Human Services consider vaccine compensation.

A compensation bill—to be introduced by Sen. Paula Hawkins (R-FL) in September after agreement between the American Academy of Pediatrics and a parents group called Dissatisfied Parents Together—already waits on the legislative horizon. One provision, already agreed upon, can be expected: a simple, speedy, inexpensive, and no-fault federal program. The bill should ensure that the award of compensation will not depend on identification of the vaccine manufacturer, proof of negligence by the doctor, or a defect in the vaccine itself, parents and pediatricians have agreed.

Yet there is still substantial debate over specific points in the bill. Parents believe compensation should be available regardless of how long ago the injury occurred; pediatricians believe there should be a time limit on injuries suffered after vaccination. Parents urge mandatory reporting to CDC of all side effects, replacing the current passive and voluntary system; pediatricians should bear the primary financial burden of the system; pediatricians will recommend that the costs of the program be raised by a surcharge on the vaccine, thus indirectly taxing the vaccine recipient.

Video Terminals Not Harmful

In many instances, video display terminals (VDTs) have been introduced into workplaces with little attention to human factors, illumination engineering, or industrial and organizational psychology, a National Academy of Sciences research panel has concluded.

"We strongly recommend that manufacturers and users of VDT equipment draw upon available scientific data in designing and selecting VDT work and equipment," the panel's report says.

As the use of VDTs has increased—an estimated 10 million terminals are now used by clerical workers, typesetters, computer programmers, writers, editors, and air traffic controllers—so have worker complaints. Blurred vision, tired eyes, muscular aches and stress are the most common VDT-associated health problems.

But it is the conditions of employment—such as poor lighting, repetitive tasks, and a poorly designed workstation—that may prompt worker complaints, the panel said.

Based on the panel's review of current literature for the National Institute of Occupational Health and Safety, they concluded: "It seems likely that with proper design of VDT display characteristics, workplace lighting, workstations, and jobs, VDT work need not cause any unique visual problems."

The common visual fatigue associated with VDT use seems similar to the temporary fatigue associated with other close visual tasks. However, some visual problems are unique to VDTs: oculomotor discomfort, produced by frequent focusing and back-and-forth glances between written and visual text at different distances; a phototrophic response, causing the operator's eyes to move away from the display image towards reflected images on the screen; and strain resulting from VDT screens positioned at angles or distances incompatible with bifocal eyeglasses.

The lighting in most offices is designed for work at a vertical level; VDT screens, however, are horizontal and develop glare. Special filters, while reducing glare, may also reduce the quality of luminance of the display image. So filters should be used only as a supplement, not a replacement, for proper lighting, the panel suggested.

It is "highly improbable" that the radiation emitted by VDTs causes cataracts, the panel concluded. Animal and human studies show that the levels of radiation required to produce cataracts are thousands to millions of times higher than levels of radiation emitted by VDTs. Common fluorescent lights, sunshine,

and other sources of radiation are more hazardous, according to the panel.

Most complaints are reported by workers who must perform single tasks all day, receiving little pay and few responsibilities, in jobs that stifle initiative, creativity, and a sense of achievement. Stress may be influenced by work complexity, the size of the workload, computer system breakdowns and processing delays, and threat of job loss. VDT health problems are caused by jobs "in which the work is not organized with the worker in mind, and are not inherent to VDT technology and software."

It is too soon to establish the mandatory standards for VDT design and use already adopted by several European countries, the panel advised. Rigid standards could stifle technological improvements, moreover, simplified specifications can be "misleading and seductively comforting," it said.

announcements

CALENDAR OF MEETINGS

NATIONAL

Oct. 2-5	American Neurological Association—Fairmont Hotel, New Orleans
Oct. 5-8	American Thyroid Association—Fairmont Hotel, New Orleans
Oct. 5-9	American Academy for Cerebral Palsy and Developmental Medicine—Marriott Hotel, Chicago
Oct. 13-15	Child Neurology Society—Williamsburg, Va.
Oct. 14-22	American Society of Clinicial Pathologists—St. Louis
Oct. 16-21	American College of Surgeons—Hilton, Atlanta
Oct. 21-23	American Academy of Neurological and Orthopaedic Surgeons—Caesars Palace Hotel, Las Vegas
Oct. 21-23	American Academy of Otolaryngic Allergy—Disneyland Hotel, Anaheim, Calif.
Oct. 22-27	American Academy of Pediatrics—Hilton, San Francisco
Oct. 23-27	American Academy of Otolaryngology-Head and Neck Surgery—Convention Center, Anaheim, Calif.
Oct. 23-27	American College of Chest Physicians—Hyatt Regency, Chicago
Oct. 23-27	Medical Group Management Association—Hilton, Washington, D.C.
Oct. 23-29	American College of Gastroenterology—Biltmore, Los Angeles
Oct. 24-27	American College of Emergency Physicians—Atlanta
Oct. 26-30	American Academy of Child Psychiatry—San Francisco
Oct. 27-30	American Association for Hand Surgery—Hilton, Dallas
Oct. 31-Nov. 3	Interstate Postgraduate Medical Association, 68th Scientific Assembly—Diplomat Resort, Hollywood, Fla.
Nov. 1-4	American Academy of Occupational Medicine—New Orleans Marriott Hotel
Nov. 1-11	American Society of Cytology, Denver Hilton
Nov. 3-4	American Pancreatic Association—Ambassador West Hotel, Chicago
Nov. 3-5	Southern Thoracic Surgical Association, Marriott Hotel, Marco Island, Fla.
Nov. 4-5	AMA/AHA National Conference on Medical Control and Accountability in EMS—Chicago Marriott
Nov. 6-9	American Physicians Art Association—Baltimore
Nov. 6-9	Southern Medical Association—Hyatt Regency, Baltimore
Nov. 6-11	American Academy of Physical Medicine and Rehabilitation—Westin Bonaventure, Los Angeles
Nov. 9-12	American Medical Writers Association—Bellevue Stratford, Philadelphia
Nov. 9-13	American Medical Women's Association—Hyatt Regency, Dearborn, Mich.
Nov. 13-17	American Public Health Association—Dallas
Nov. 18-22	Gerontological Society of America—San Francisco Hilton

STATE

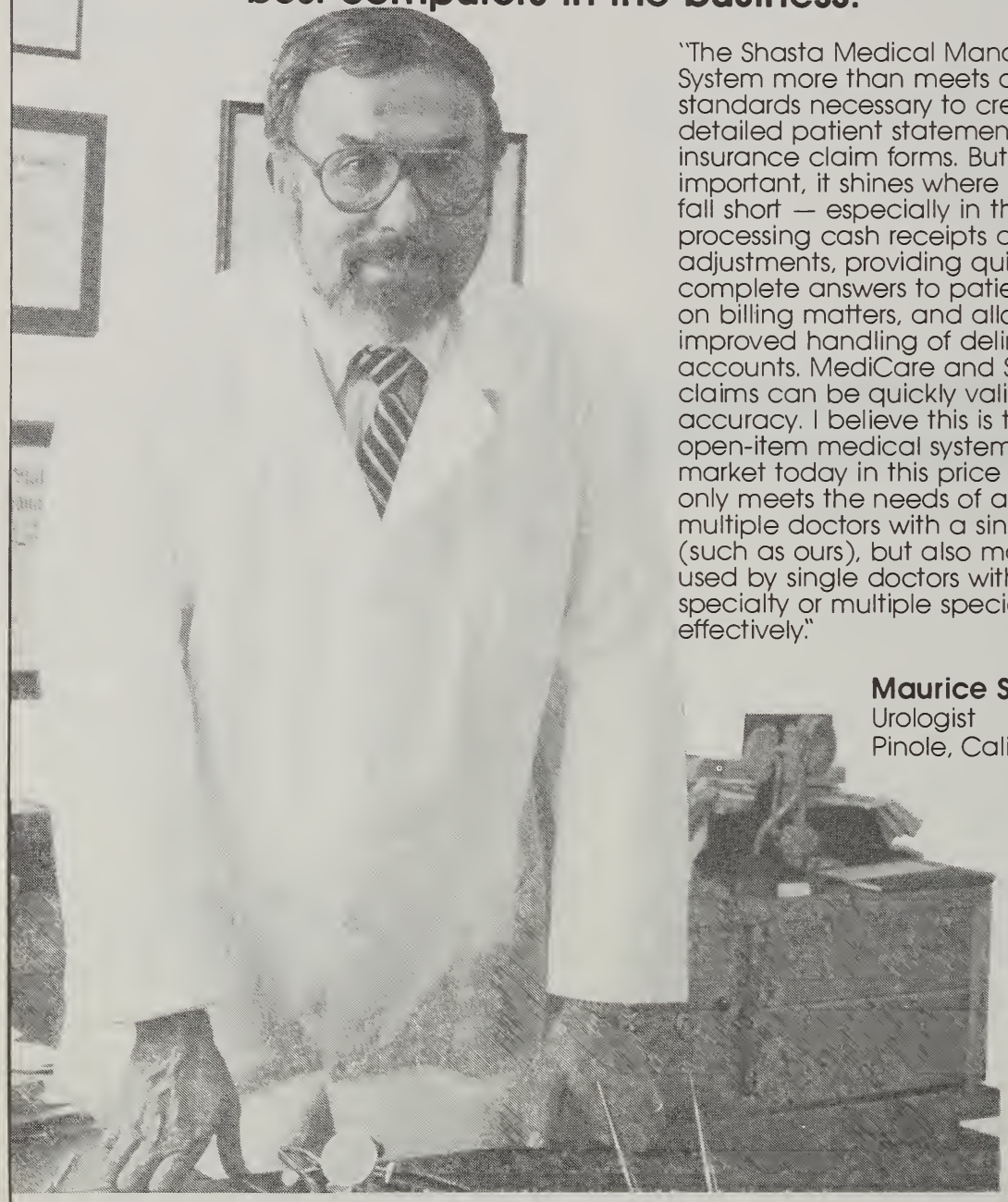
Oct. 13-15	Tennessee Society of Internal Medicine and American College of Physicians, Tennessee Region (Annual Meeting)—Memphis
Nov. 1-4	Tennessee Academy of Family Physicians—Gatlinburg

A trial lawyer who was interviewed in a para-medical publication, very unashamedly said he'd nail every physician he could to the cross, even if the physician was "bare," had no insurance. The public must be told this sordid story! It *cannot* be expected to be impressed by an appeal for sympathetic understanding, because it has been brainwashed with the concept that, "of course the physician will squeal, but they're insured," and it appears that some juries seem to think that even if the physicians aren't guilty, "why not give the poor patient a few dollars?" Again, these people fail to realize that in the long run, *they* and not the physicians, are paying for the judgments.

Lester J. Candela, M.D.
New York State Journal of Medicine (9-81)

The Physician

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Notes on Medical History

A Round of Calomel

B. C. COLLINS, M.D.

My favorite uncle was Grover Cleveland Sumpter, M.D. A bit of uniqueness was apparent even in his name—he had been named for a Democratic President although his birth in 1885 in the northeastern tip of Tennessee was an island of Republicanism which, even during the Civil War, had remained loyal to the Union. He received his high school, college, and medical education at Lincoln Memorial University, a university which had been established after the Civil War by a directive from President Lincoln to General Howard, the Bible-carrying General.

Uncle Grover began life on a rocky, mountainous farm, the nearest combination store and post office being at Lone Mountain about ten miles away. He grew up as a farm boy and made enough money cutting and hauling saw logs to finance his medical education at Knoxville. He graduated in 1913, the last year of existence of the Lincoln Memorial University College of Medicine.

Dr. Sumpter was an outdoorsman; he preferred making home calls to being confined in an office. He started practicing in Mulberry, Tenn. in 1913; his office was a single room in the house where he had grown up. The practice area was served by a party line telephone. The quality of the service was often very poor as many of his neighbors would listen in on any call to the doctor and thus overload the capacity of the system. He traveled mostly on horseback; later, when the roads were somewhat improved, he used a horse and buggy. His saddle bags were fully equipped with the necessary drugs to compound any needed prescription during the visit at the patient's home. Among those most frequently used were calomel, digitalis, morphine, bismuth, Salol (an intestinal disinfectant?), quinine, aloes, aspirin, oil of wintergreen, and numerous others that were used occasionally.

He practiced out of his farm home in Mulberry for nine years and then moved across the state line to Rose Hill, Va. where he had his office in town. His office was three rooms in the back of a large brick building that had been the Rose Hill bank before it failed in 1932. He did not have a telephone or a refrigerator. My aunt lived on the floor above the office and biologicals were kept in her ice box.

Uncle Grover practiced a simple and basic kind of medicine. He believed that one should rely on the history and physical examination and the clinical impression. He criticized his contemporaries who would not practice without the laboratory, microscope, and x-ray. His only laboratory test was a simple urinalysis for specific gravity, glucose and protein. He was extremely conservative in regard to surgery. He believed in cleansing and suturing lacerations and wounds, lancing abscesses, and pulling teeth, but thought that his medical treatment for pain and tenderness of the abdomen and tumors of the breast was as effective as the surgery available in Middlesboro, Ky. or Knoxville. As a medical student, I saw in his office a 22-year-old man from the other side of the mountain with a large (2 inch) shaggy looking fungating mass on his head which may have been a basal cell carcinoma. When after some time had passed and neither Uncle Grover nor the patient had made mention of this lesion, I volunteered the suggestion that it should be removed. This suggestion floated like a lead sinker in the fish pond.

He warned me not to become dependent on the microscope, as he had practiced very successfully without one, and he further said that he preferred his pocket knife to one, as he could, and had, whittled out splints for broken limbs with it.

The usual professional visit consisted of a social inquiry about the patient, his family, the crops, how much they had in "baccer" (the main cash crop was tobacco), and the number of quail coveys they had on their farm. These data were then recorded in a small notebook for use in the fall hunting. He also offered advice on crop rotation, and when to plant, cultivate, and harvest. He then took the history; this consisted of the complaint, the state of the patient's bowels, his activity, digestion, difficulty in breathing, and ability to work. The usual fee for an office visit was one dollar, or twenty-five or fifty cents more if medicine was dispensed.

Uncle Grover liked obstetrics. He stated that he had delivered over 3,000 babies and had never lost a mother. He induced labor in one patient by using a pair of scissors to dilate the cervix. All of his babies were delivered in the home, usually in a bed that had an axe underneath. It was believed that a sharp axe would "cut the pain." He was quite tolerant of anything as long as it did no harm. His home was modern, and had all the appliances except a furnace. He wanted to stay "toughened up" so as to be able to sit in a drafty house for an obstetrical case. Perhaps this was a trait that he had inherited from my Grandmother Sumpter, who had refused to have running water in her house

when Uncle Grover had gotten a pipe and brought spring water into the yard. She requested the waterline be terminated about 10 feet outside the house in a faucet. To bring it into the house would be "spoiling."

Uncle Grover believed in good wholesome food. He and his wife raised most of what they consumed. He was well acquainted with deficiency diseases and had a theory about "veetamines," especially those in one of his favorite foods, corn bread. He believed that corn should be ground slowly in an old stone mill driven by an overshoot water wheel. He had kept a loose record of families who used the stone mill and those who bought meal that had been ground by the new steel mill. He claimed there was a substantial difference in the health of the two groups. It occurred to me at the time, though I did not say so, that the cooking of the cornmeal into bread required a much higher temperature and hence would have destroyed the "veetamines" anyway. Who knows? He may have been right, after all, for his blood pressure remained low all his life, and there was no arteriosclerosis when he died at the age of 80.

Uncle Grover raised tobacco on his farm, but did not use it. Soon after I arrived in Virginia in 1935, he asked me if I smoked; I told him I didn't. He said: "Don't start; when you get old you will need eyeglasses, dentures, and perhaps a cane, and if you have to carry tobacco, paper, and matches it will take all of your time just caring for yourself."

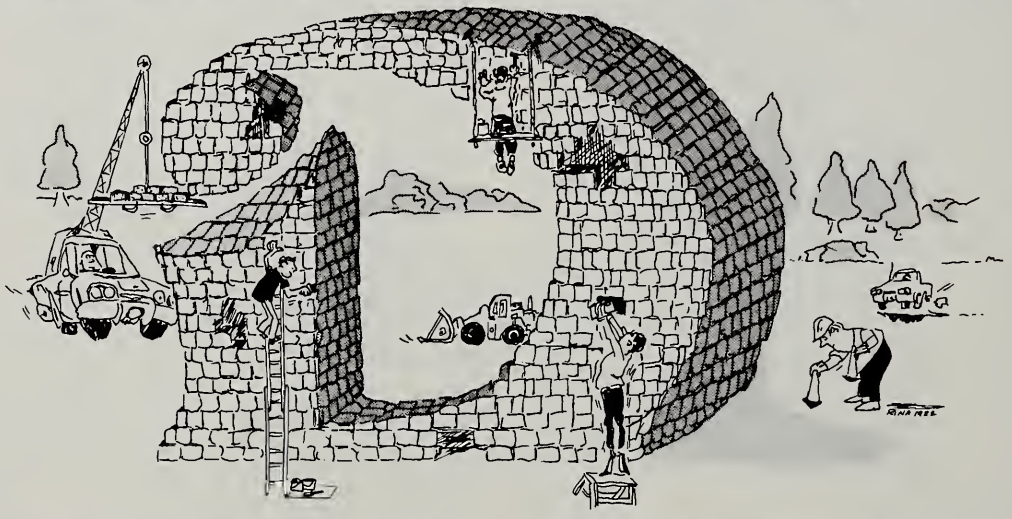
My uncle kept a watch on his own health; at age 77 while palpating his abdomen he found he had a enlarged liver. It proved to be metastatic carcinoma. He refused surgery, saying it would do no good, and kept his condition a secret from all except the immediate family, as he did not want patients inquiring about his health.

Uncle Grover dressed neatly and looked more like a bank president than a small town doctor. He was a very gracious host to anyone visiting in his home, but a stern taskmaster to anyone working for him. In 1935, shortly after the New Deal was put into effect, he stuttered as he told me that the country was being ruined, as "people won't work." The going wage for workers on his farm was 10 cents an hour for manual labor, such as chopping blackberry briars.

Shortly after my graduation from medical college, Uncle Grover gave me one choice bit of advice: "If you ever get a case that doesn't respond—give him a round of calomel."

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Highlights of the TMA Board of Trustees Meeting

July 10, 1983

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular third quarter meeting in Olive Branch, Miss., on July 10, 1983.

THE BOARD:

Impaired Physician Committee

Heard a report from the Impaired Physician Committee that it is screening applicants for a part-time director for the Impaired Physician Program and expects to be able to make a recommendation and present an applicant for concurrence at the October Board meeting.

Committee on Governmental Medical Services

Directed the Committee on Governmental Medical Services to work with Equitable Insurance on developing a method of multiple carrier electronic billing.

Committee on Rural Health

Approved the 21st annual Rural Health conference to be held at the 4-H center in Greenville, Oct. 5, 1983.

SVMIC

Received a report regarding the operations of State Volunteer Mutual Insurance Company and noted that the AMA's reinsurance company, AMACO, had been eliminated by SVMIC as a reinsurer. The Board voted to communicate with the SVMIC Board urging loyalty to the AMA-owned insurance company in the same manner as SVMIC urges loyalty on the part of the TMA membership.

Auxiliary Request

Agreed to contribute $1,500 for the Sharing Card Program of the TMA Auxiliary.

AMA Alternate Delegate

Accepted the resignation of Dr. C. C. Woodcock, Nashville, as alternate delegate to the American Medical Association, and appointed Dr. Robert W. Ikard, Nashville, to fill the unexpired term of Dr. Woodcock.

AMA-GTE MINET

Agreed to enter into a contract with GTE for distributorship of the AMA/GTE Medical Information Network (MINET) provided GTE would agree not to enter into an agreement with anyone else using a fee schedule less than the rate given TMA.

Middle Tennessee Health Systems Agency

Recommended Dr. Virgil Crowder, Jr., Lawrenceburg, for consideration for reappointment to the Middle Tennessee Health Systems Agency.

Committee on Scientific Affairs

Appointed Dr. Winston P. Caine, Chattanooga, to the TMA Committee on Scientific Affairs in the place of Dr. H. V. Barnes, who has resigned.

Mid-South Foundation for Medical Care

Reiterated previous policy regarding endorsement of the Mid-South Foundation for Medical Care as the PRO for Tennessee when area designations are made by the Department of Health and Human Services.

Letter from AMA

Received a report on the possible policy change on the part of AMA as to whether AMA should recommend that third party payors change to an indemnity system of payment for physician services instead of a usual, customary

and reasonable system. The report was referred to the Governmental Medical Services Committee for study with recommendations to be submitted to the Board at the October meeting.

Socioeconomic Conference Sponsorship

Agreed to participate as a sponsor of a mid-south regional conference addressing socioeconomic issues affecting the practice of medicine, to be conducted by the Memphis-Shelby County Medical Society. The conference will be held Sept. 12-13, 1984, at the Peabody Hotel in Memphis.

AMA Meeting and Delegates Report

Received for information a report from Dr. Hamel Eason, Memphis, chairman of the Tennessee delegation to the AMA House of Delegates, regarding actions taken by the AMA House at the June annual meeting.

Travel Committee Recommendations

Agreed to sponsor two trips during the winter of 1984, one being a 15-day visit to Australia, New Zealand and Tahiti, and the other an 8-day, 7-night visit to the Virgin Islands on a newly built cruise ship, the Newport Clipper. It was also agreed to sponsor a 14-day trip to Russia and an 8-day New England Air/Sea Cruise during the summer and early fall of 1984.

Financial Statement

Approved the Association's third quarter financial statement.

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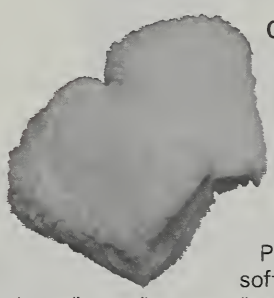
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TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Oct. 6-8	5th Annual Frontiers in Nutrition Conference—Hilton Head Island, S.C.
Oct. 7	Treatment of Chronic Depression (for nonpsychiatrists) (7 hours)
Oct. 7-8	14th Annual Pediatric Symposium: Pediatric Infectious Diseases (10 hours)
Oct 13-16	International Surgical Group
Oct. 27-29	New Frontiers in Cancer, Annual Medical Alumni Reunion
Nov. 2-4	Tennessee Public Health Association Annual Meeting
Nov. 2-5	12th Annual Rhamy-Shelly Lectureship in Urology
Nov. 9-11	2nd Tennessee Perinatal Education Conference
Dec. 3-4	Update in Anesthesiology and the Benjamin Howard Robbins Memorial Lecture

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37202, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastrocnterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.

Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D
	Ira D. Thompson, M.D.
Urology	Marcelle P. Hamberg, M.D

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

Oct. 14	Child Abuse
Oct. 19-21	Cardiology Update—Chattanooga
Nov. 10-11	Sleep Disorders

Knoxville

Oct. 13-15	Obstetrical Office Ultrasound—Gatlinburg
Oct. 20-22	Cancer Concepts '83—Gatlinburg
Oct. 23-25	4th Annual Smoky Mountain Seminar in Ob/Gyn—Gatlinburg

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 956 Court Ave., Memphis, TN 38163, Tel. (901) 528-5547.

BAPTIST MEMORIAL HOSPITAL

Nov. 10-11 Sleep Disorders

For information contact Ken Burch, Ed.D., Educational Support Services, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

EAST TENNESSEE STATE UNIVERSITY

Continuing Education Schedule

Oct. 18	Antimicrobial Therapy of Life-Threatening Infections—Sullins Humanities Center, Bristol, Va.
Oct. 19	Pain Management
Oct. 27-29	Anesthesiology Review Seminar—Gatlinburg
October	Family Therapy
Nov. 4-5	Asthma—Martha Washington Inn, Abingdon, Va.
Nov. 9	The Management of Stress—Bristol, Tenn.
December	Breast/Colorectal Cancer
January	Medical Updates V: A Review of Recent Advances in Medicine—Vail, Colo.

For information contact Sue Hutchinson, M.P.H., Medical Program Coordinator, Office of CME, ETSU, Quillen-Dishner College of Medicine, P.O. Box 19660A, Johnson City, TN 37614, Tel. (615) 928-6426, Ext. 204.

ST. THOMAS HOSPITAL—NASHVILLE

Oct. 14	Sleep Disorders Seminar—St. Thomas Hospital, Nashville. *Credit:* 7 hours AMA Category 1. *Fee:* $75.
Nov. 30-Dec. 2	Management of the Critically Ill Patient

For information contact Mr. George Geyerhahn, Director, Medical Learning Center, St. Thomas Hospital, P.O. Box 380, Nashville, TN 37202, Tel. (615) 386-2007.

IN SURROUNDING STATES

EASTERN VIRGINIA MEDICAL SCHOOL

Oct. 7 Selected Topics in Pediatrics (cosponsored by Children's Hosp. of the King's Daughters)–Norfolk, Va. *Credit:* AMA Category 1.

For information contact Jean E. Shelton, M.D., 800 W. Olney Rd., Norfolk, VA 23507, Tel. (804) 628-3798.

UNIVERSITY OF MISSISSIPPI

Oct. 6-7 Diabetes and Other Endocrine and Metabolic Disorders—Holiday Inn Medical Center, Jackson, Miss. *Credit:* 11.33 hours AMA Category 1.

For information contact Continuing Education, University of Mississippi Medical Center, 2500 N. State St., Jackson, MS 39216.

SOUTH HIGHLANDS HOSPITAL—BIRMINGHAM

Oct. 14 Inflammatory Bowel Disease: Newer Developments in Medical Treatment, Pathology, and Operative Management—Birmingham Hilton, Birmingham, Ala. *Credit:* 7 hours AMA Category 1. *Fee:* $40.

For information contact Mrs. Dena Metts, South Highlands Hospital, 1127 S. 12th St., Birmingham, AL 35205, Tel. (205) 250-7703.

BOWMAN GRAY

Dec. 1-3	2nd Comprehensive Breast Disease Symposium. *Credit:* 20 hours AMA Category 1. *Fee:* $300.
Dec. 8-10	Pediatric Imaging Seminar. *Credit:* 20 hours AMA Category 1.

For information contact Postgraduate Course in Medical Sonics, 300 S. Hawthorne Road, Winston-Salem, NC 27103, Tel. (919) 748-4505.

OF SPECIAL INTEREST

AMERICAN GERIATRICS SOCIETY—WESTERN DIVISION

Oct. 28-29 Geriatric Medicine Today and Tomorrow (12th Annual Symposiumm)—Boswell Memorial Hospital, Sun City, Ariz. *Credit:* hour for hour AMA Category 1. *Fee*: $100.

For information contact Marian Richardson, Executive Secretary, Western Division of the American Geriatrics Society, 13220 N. 105th Ave., Room 12, Sun City, AZ 85351, Tel. (602) 977-1877.

UNIVERSITY OF PITTSBURGH

Dec. 10-14 Ear, Nose and Throat Diseases in Children: A 1983 Update (including the most recent results of the Pittsburgh and Boston studies of ear and sinus disease and tonsillectomy and adenoidectomy)—The Breakers, Palm Beach, Fla. *Credit:* 17 hours AMA Category 1. *Fee:* physicians $250; residents $185.

For information contact Department of Otolaryngology, Children's Hospital of Pittsburgh, 125 DeSoto St., Pittsburgh, PA 15213, Tel. (412) 647-5465.

AMERICAN CANCER SOCIETY

Dec. 8-10 National Conference on Advances in Cancer Therapy—New York, N.Y. *Credit:* 16.5 hours AMA Category 1.

For information contact Nicholas G. Bottiglieri, M.D., Advances in Cancer Therapy Conference, American Cancer Society, 777 3rd Ave., New York, NY 10017, Tel. (212) 371-2900.

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER

Dec. 7-9 Neurology for the Non-Neurologist—The Westin Hotel, Chicago. *Credit:* 20 hours AMA Category 1.

For information contact University Office of Continuing Education, Rush-Presbyterian-St. Luke's Medical Center, 600 S. Paulina, Chicago, IL 60612, Tel. (312) 942-7095.

Inflammatory Bowel Disease: Newer Developments in Medical Treatment, Pathology, and Operative Management—

is the title of a symposium for physicians to be presented October 14, 1983*, in Birmingham, Alabama.

The symposium, which will provide physicians with seven (7) hours of Continuing Medical Education (CME) credit, Category I ,is sponsored by **South Highlands Hospital** and coordinated by Dr. Arthur M. Freeman, Jr. It will be held at the Birmingham Hilton —808 South 20th Street, Birmingham, Alabama from 9:00 A.M. until 5:00 P.M.

A block of rooms has been reserved at the Birmingham Hilton for the meeting. The fee for the seminar is $40, which includes lunch. For further information and to register, contact: Mrs. Dena Metts, Medical Staff Coordinator, South Highlands Hospital, 1127 South 12th Street, Birmingham, Alabama 35205. **Phone: (205) 250-7703.**

*October 14th is the day prior to the Alabama/Tennessee football game.

PROGRAM PARTICIPANTS

Joaquin S. Aldrete, M.D. - Professor of Surgery, Department of Surgery, The University of Alabama in Birmingham, School of Medicine.
U.S. Senator Howell Heflin - (D) Alabama
Basil I. Hirschowitz, M.D. - Professor & Chairman, Department of Medicine, The University of Alabama in Birmingham, School of Medicine.
Patrick H. Linton, M.D. - Professor & Chairman, Department of Psychiatry, The University of Alabama in Birmingham, School of Medicine.
Willis S. Maddrey, M.D. - Magee Professor of Medicine & Chairman, Department of Medicine, Jefferson Medical College, Thomas Jefferson University, Philadelphia, Pennsylvania (Formerly at Johns Hopkins).
Eugene S. Sullivan, M.D. - Clinical Associate Professor of Surgery, University of Oregon Medical School, President, American Society of Colon & Rectal Surgeons, Portland, Oregon.
John H. Yardley, M.D. - Professor of Pathology, Department of Pathology, The Johns Hopkins University, School of Medicine, Baltimore, Maryland.

PANELISTS

Arthur M. Freeman, M.D. - (Moderator), Director of Medicine-South Highlands Hospital, Clinical Professor of Medicine, The Univ. of Alabama School of Medicine, (Gastroenterology), Birmingham, AL
Joseph B. Beaird, Jr., M.D.-(Pathology), Birmingham, AL
W. Roger Carlisle, M.D. - (Gastroenterology), Birmingham, AL
Joseph M. Donald, Jr., M.D. - Director of Surgery - South Highlands Hospital, Clinical Instructor in Surgery - The Univ. of Alabama School of Medicine (Surgery), Birmingham, AL
Alan J. Greenwald, M.D. - (Gastroenterology), Birmingham, AL
Gorazd C. Luketic, M.D. - (Gastroenterology), Birmingham, AL
M. Bruce Sullivan, M.D. - (Surgery), Birmingham, AL
William N. Viar, Jr., M.D. - (Surgery), Birmingham, AL

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Musculocutaneous Flaps for Head and Neck Reconstruction

REUBEN A. BUENO, M.D. and STUART C. SPIGEL, M.D.

The development of musculocutaneous flaps for the head and neck region enables surgeons to cover a variety of surgical wounds. Useful in either the initial operation, or with salvage surgery for recurrent cancer, these flaps permit one-stage reconstruction and healing in radiated wounds. They can withstand postoperative radiation without difficulty. The pectoralis major, trapezius, and sternomastoid musculocutaneous flaps are commonly used to provide skin and muscle coverage in the head and neck.

External fungation, pain, and functional deficit are the main indications for salvage surgery of recurrent tumors of the head and neck. While patients are unlikely to be cured, the quality of their lives is improved. Salivary fistulae and the stench from necrotic tumor are eliminated, and self-confidence and sociability are enhanced after successful reconstruction.

The anatomic basis for these flaps is supported by the experimental and clinical recognition of musculocutaneous vessels and their predictable presence between muscle masses and the overlying skin. They can be elevated in one stage, without regard to conventional length-width ratio, so long as the muscle has adequate circulation.[1,2]

Clinical Experience

Personal experience from 1980 to 1982, dealing specifically with 19 musculocutaneous flaps in the reconstruction of head and neck wounds, constitutes the basis for this report. Eleven of the

TABLE 1

SUMMARY OF APPLICATION OF MUSCULOCUTANEOUS FLAPS

Pectoralis Major		11
primary and recurrent cervical squamous cell cancer	7	
radio-necrosis of mandible	2	
gingival sulcus replacement	1	
gunshot wound of orbit	1	
Trapezius		5
infected mastoid and temporal bone resection with CSF leak	3	
oropharyngeal resection	1	
fibro-sarcoma of cervical spine	1	
Sternomastoid		3
exposed carotid artery	1	
anterior floor of mouth defect	1	
chin resection	1	
	TOTAL	19

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flaps were used to cover defects from resection of recurrent cancer. All 11 patients had received a full course of radiation therapy and additional chemotherapy prior to salvage surgery. Four flaps were necessary to resurface areas exposed by cancer resection of the mastoid and temporal bone that became infected, followed by skin necrosis and cerebrospinal leak. In two patients reconstruction was done at the same time as the resection of their primary tumor, and one flap was used to reconstruct a gunshot wound of the orbit (Table 1). Recourse to these flaps was necessary because the operative wound needed a large skin surface and muscle bulk for healing.

The complication rate was 10.5% (2 of 19 flaps). Necrosis developed at the tip of one trapezius flap brought up to the temporal bone. This was treated with debridement and skin graft. The other complication was epidermolysis of the skin paddle of a sternomastoid flap transported ante-

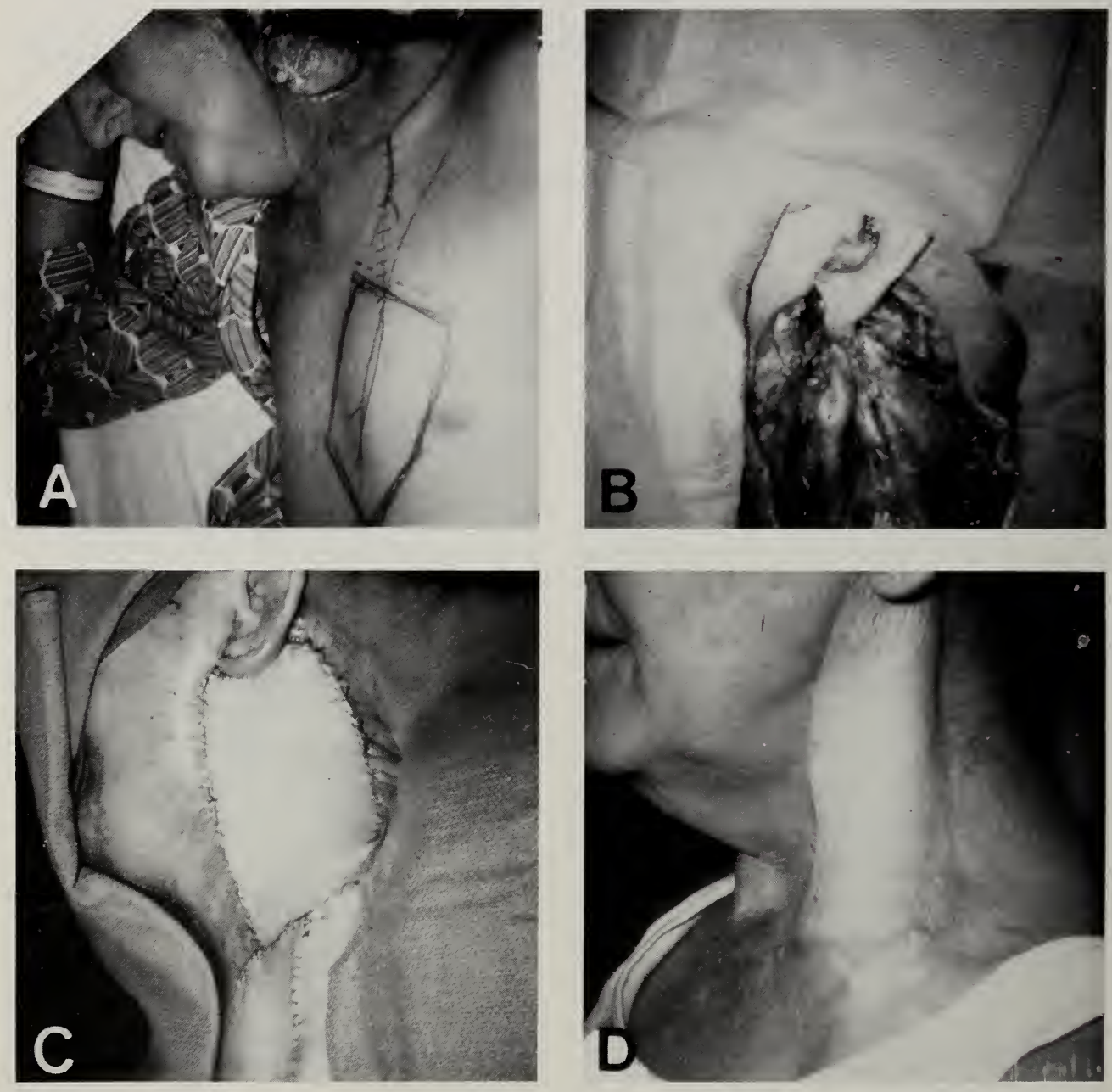


Figure 1. (Case 1) (A) Tumor of neck and design of pectoralis major flap. (B) Operative wound after wide excision and radical neck dissection. (C) Transport of flap to recipient site. (D) Postoperative appearance at 14 months.

riorly to cover a chin resection. In this case, the skin healed spontaneously (case 3). Pectoralis major flap reconstruction was the most successful, with no loss of any portion of the flap in 11 patients.

Illustrative Cases

Case No. 1: A 70-year-old man was referred to me because of recurrent squamous cell carcinoma of the skin of the left neck following surgical excisions and radiation therapy. He had a 6 x 8-cm ulcerated, malodorous bilobed mass beneath the left ear. Oral and nasopharyngeal examination failed to show a primary lesion, and skull and chest x-rays were normal. On Jan. 21, 1980, he underwent wide excision of the recurrent tumor, a left radical neck dissection, and pectoralis major musculocutaneous flap reconstruction (Fig. 1). The patient is alive and doing well, without evidence of tumor recurrence.

Case No. 2: An 18-year-old woman was admitted to Baptist Hospital on Nov. 5, 1981 with a rather extensive basal skull tumor. On Nov. 10, an extracranial and intracranial resection of a rare

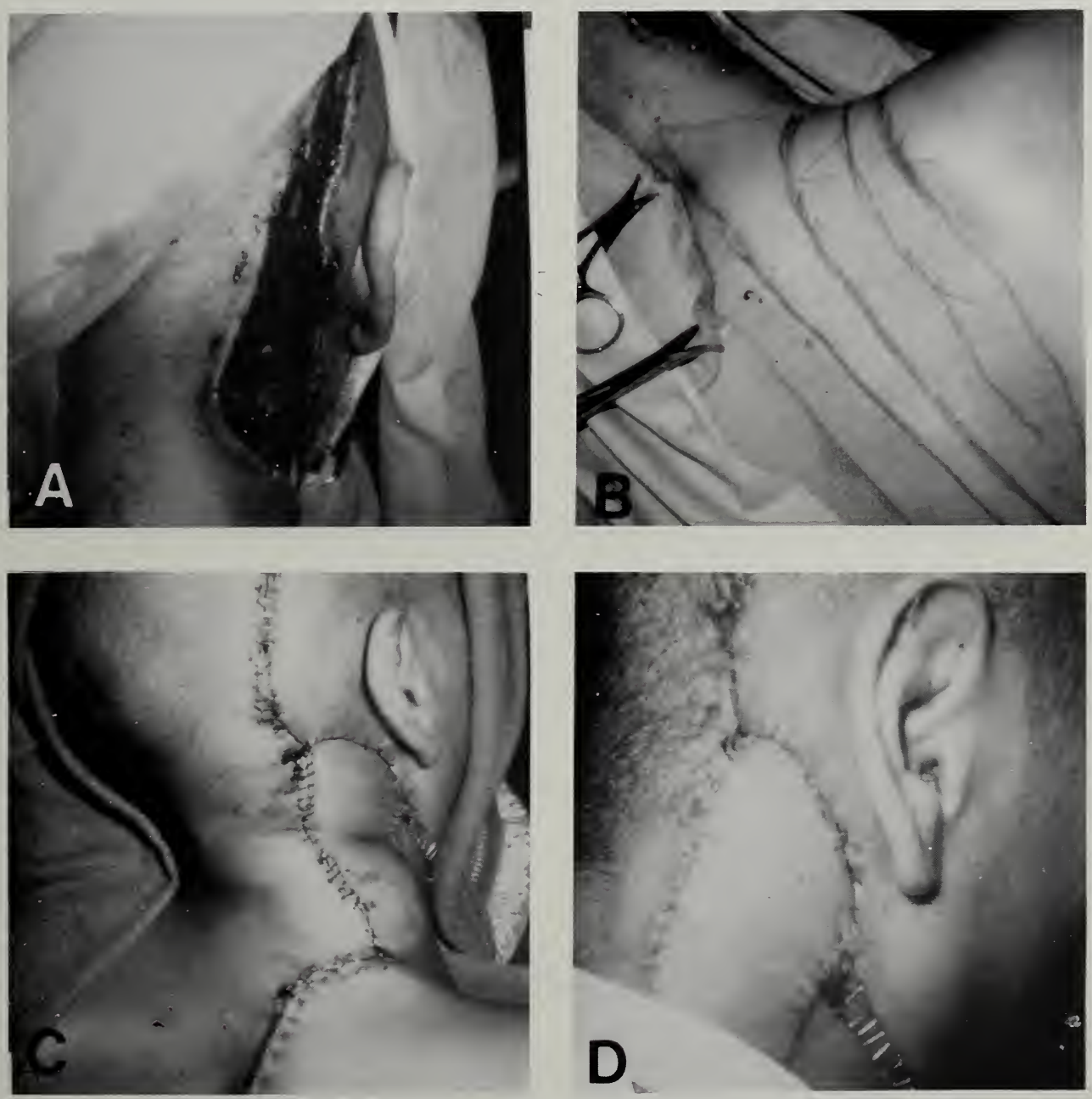


Figure 2. (Case 2) (A) Infected mastoid wound with CSF leak. (B) Design of the trapezius flap. (C) Transport of flap to recipient site. (D) Postoperative appearance at seven days.

papillary cystadenocarcinoma arising from the middle ear fossa was performed. On Nov. 20 her temperature rose to 103°F. and she developed a wound infection with CSF leak, which was treated with appropriate antibiotics, repeated lumbar punctures, and pressure dressing. On Nov. 27, she had debridement and a trapezius musculocutaneous flap reconstruction to seal the CSF leak and close the wound. The combination of the flap reconstruction, lumbar intrathecal catheters, and pressure dressing subsequently resulted in a nicely healed wound (Fig. 2). She is now back home in California and doing well.

Case No. 3: A 72-year-old man was admitted to Baptist Hospital because of recurrent tumor on his left chin. Ten years earlier, he had had a left lower lip resection for squamous cell cancer. Two years later, the cancer recurred and involved the left chin. Following radiation therapy, he was free of disease until his present admission, when he had a 4-cm indurated lesion of his left chin, biopsy of which showed squamous cell

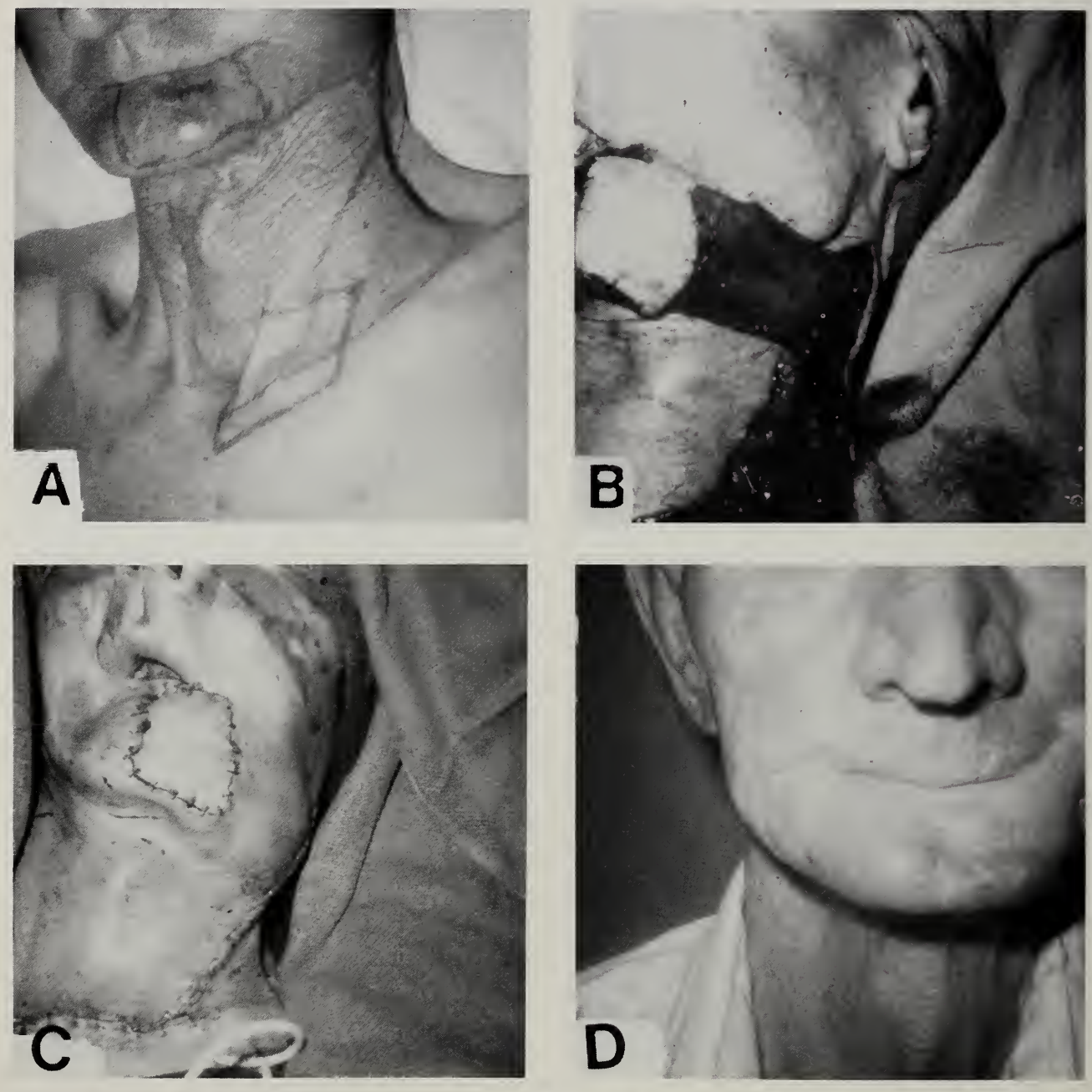


Figure 3. (Case 3) (A) Recurrent cancer of chin and design of the sternomastoid flap. (B and C) Transport of flap to recipient site. (D) Postoperative appearance at nine months.

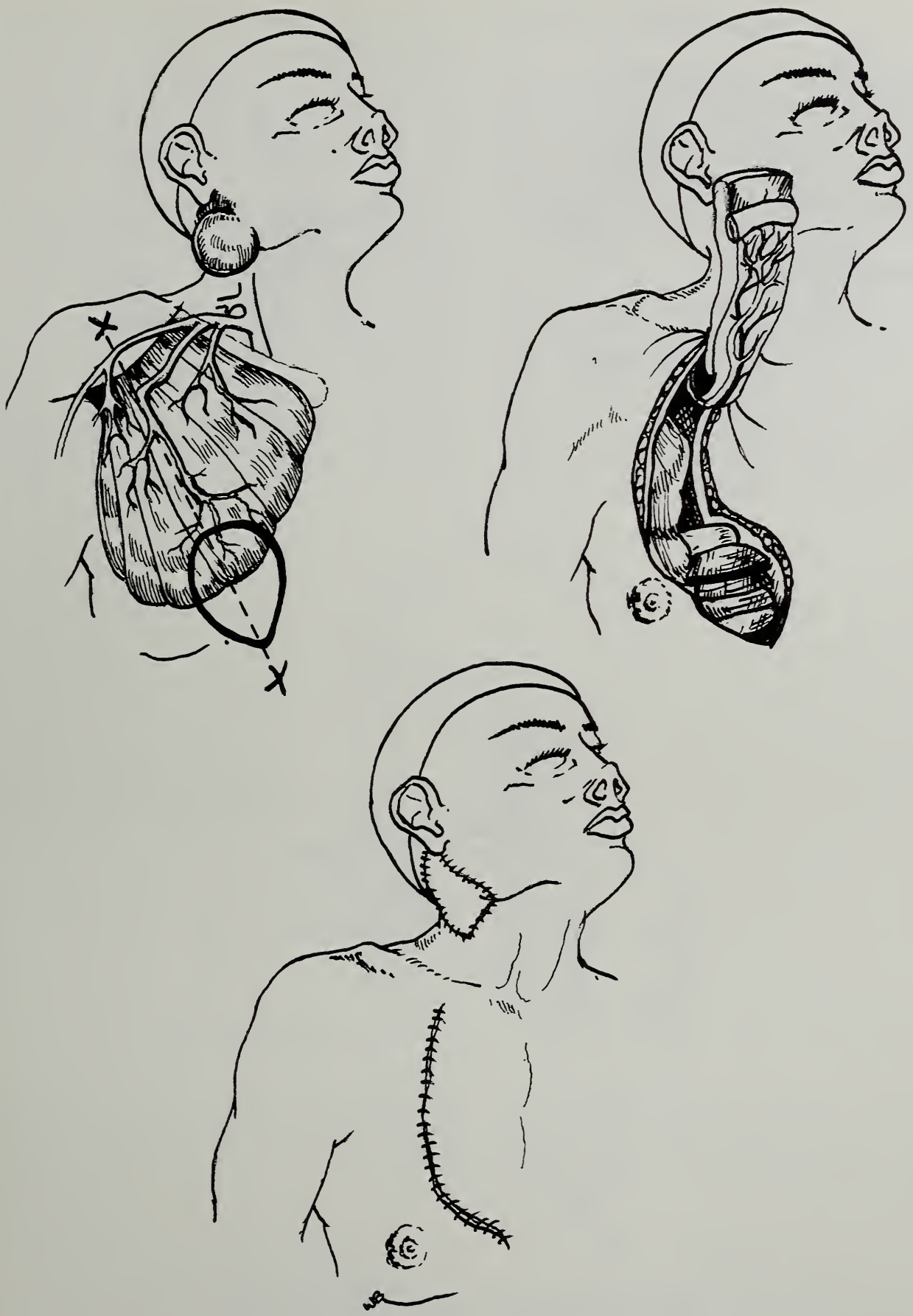


Figure 4. Schematic drawing of the design of the pectoralis major flap, identifying the vessel and transport of the flap to recipient site.

carcinoma. X-ray of his mandible was normal. On Nov. 2, 1981, excision of the chin recurrence and a sternomastoid island flap reconstruction were performed. Epidermolysis occurred on the skin paddle on the third postoperative day, but healed spontaneously in seven days (Fig. 3). He returned to farming, without recurrent disease.

Discussion

The successful application of musculocutaneous flap to the head and neck region is due to its reliable blood supply. The pectoralis major muscle is supplied by the thoracoacromial artery (Fig. 4). The trapezius muscle has three sources of blood supply: a branch from the occipital artery at the upper portion of the neck, the transverse cervical artery at the midportion of the muscle at the base and dorsally along the lateral surface of the spine, and the suprascapular artery at the shoulder tip (Fig. 5). The sternomastoid muscle is supplied superiorly by the occipital artery, in its midportion the superior thyroid artery, and inferiorly from the thyrocervical trunk[3] (Fig. 6).

Since the vessels supplying the pectoralis major and trapezius muscles are axial vessels, these muscles and the overlying skin can be completely freed from their origin and insertion and transported on their vascular axes of rotation. Since the sternomastoid muscle has perforating vessels instead of axial blood supply, the muscle is easily devascularized during surgery and should be used judiciously. Sternomastoid flaps can be based either superiorly or inferiorly. Musculocutaneous flaps can be used to cover an exposed carotid artery, resurface the anterior and posterior floor of



Figure 5. Schematic drawing of the design of the trapezius flap, identifying the vessels and transport of flap to recipient site.

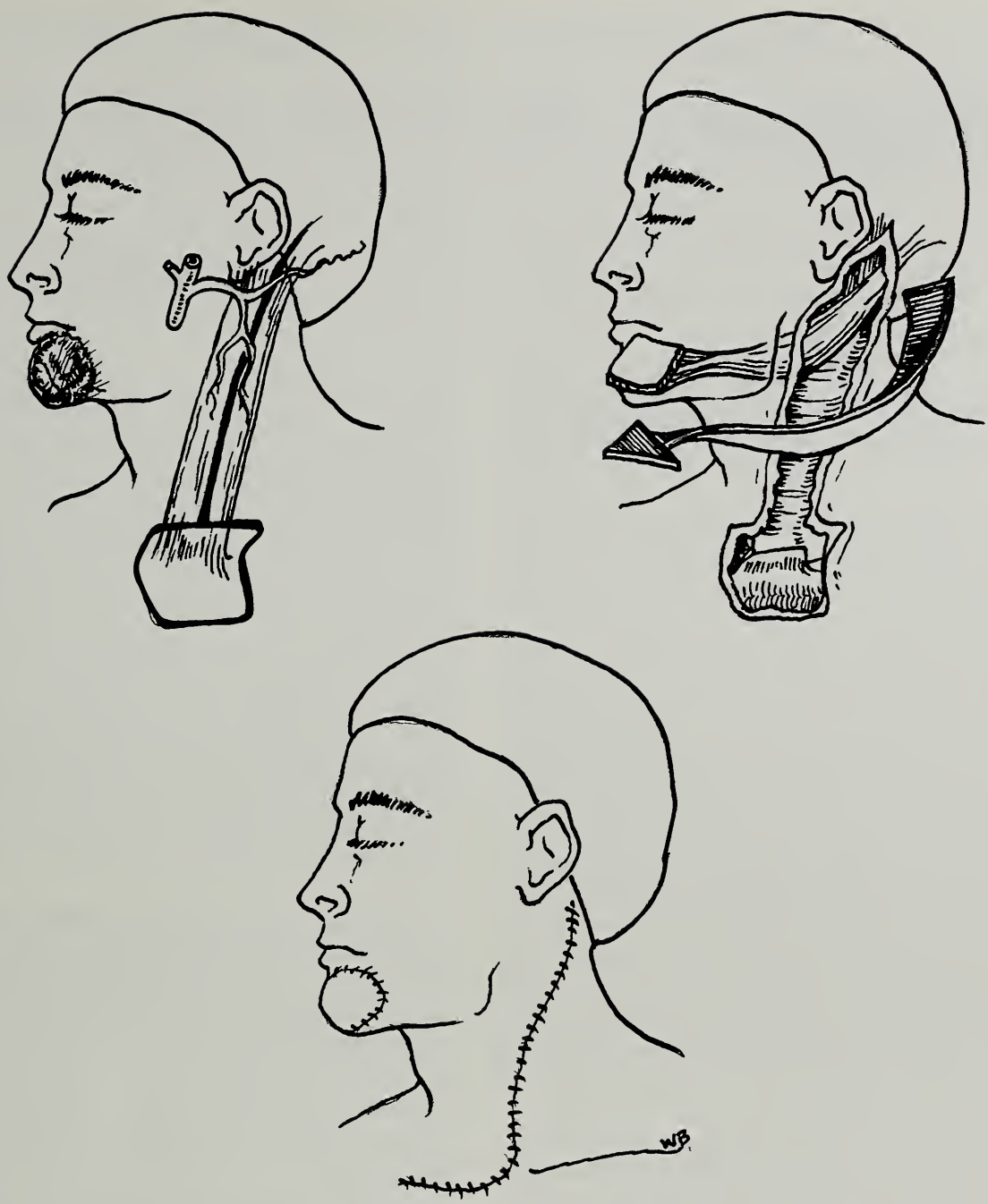


Figure 6. Schematic drawing of the design of the sternomastoid flap, identifying the vessels and transport of flap to recipient site.

the mouth, tonsillar fossa, or oropharynx, and replace full thickness loss of cheek. They are also invaluable in craniofacial and orbital reconstruction.

Conclusion

Musculocutaneous flaps are useful in head and neck reconstruction at the initial surgery, or as additional soft tissue surface cover after salvage surgery for recurrent tumor. These flaps carry their own blood supply and can survive in difficult and radiated wounds. Their arc of rotation is optimal, and complications are few (personal communication with J. B. Lynch, M.D., Dept. of Plastic Surgery, Vanderbilt Medical Center).

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Formation of a Black Medical Profession in Tennessee, 1880-1920

JAMES SUMMERVILLE

As they graduated and entered into practice, Negro physicians, dentists, pharmacists, and nurses emerged among the leaders in southern black communities during the late 19th and early 20th centuries. Their individual achievement was often considerable; however, like black Americans generally, they faced the severest legal and social oppression since slavery.

In Tennessee, conservative legislators, having captured control of the state after a brief period of Radical rule, repealed laws aimed at curbing the Ku Klux Klan and preventing segregation in transportation. In 1875 the General Assembly gave operators of hotels and eating places sanction to refuse service to anyone. Six years later it enacted the first "Jim Crow" law, requiring railroads to provide separate cars for black passengers.

The poll tax, closed primaries, and other suffrage restrictions discouraged thousands of black Tennesseans from voting. As their political influence declined, blacks had no means for resisting further deterioration in their social and economic status.

In the minds of many whites, black people were virtual incubators of communicable disease. Their allegedly congenital predisposition to disease, particularly tuberculosis, encouraged the laws that confined blacks to their own precincts. In the cities, restrictive covenants fixed boundaries to Negro neighborhoods, which were the areas of the worst housing, poorest drainage, and heaviest industrial smoke and waste. Segregation was thus encouraged, in part, by fear of blacks as a health menace.

As in the larger society, racial separation was the rule in health care. Black people were excluded from public hospitals, admitted only to separate, inferior wards, or served through dispensaries. Black students, formerly eligible for admission to certain northern medical schools, found those doors closing against them. The most terrible effect of this racial caste system in medicine was seen in the differential morbidity and mortality between whites and blacks. In Memphis between 1882 and 1895, the death rate for blacks was 50% greater than that for whites; for children under 5 years the difference was 90%.[1]

In 1869 the applications of seven black physicians were rejected by the medical society in Washington, D.C., an affiliate of the American Medical Association. At its national convention in 1870, and again in 1872, the AMA upheld the right of the District of Columbia society to exclude whomever it wished. Seeking membership in their own localities, black physicians throughout the nation experienced rejection during the years that followed.[2]

Like their white colleagues, black practitioners sought the fraternity, fellowship, and recognition that medical society membership offered. As diseases ravaged Negro communities, black physicians especially needed the exchange of scientific information available at society gatherings and in society journals. Finally, just as the AMA asserted its members' claims of competence, black doctors believed that, through organization, they could raise public confidence in their abilities. This last issue was, literally, a vital one. Dr. Arthur M. Townsend (Meharry Class of 1902), a Nashville pathologist, argued that "where our people carry out the principles of employing Negro doctors the statistics as filed in the office of the health department show that the mortality in such communities is far less than where other conditions obtain."[3]

Creation of institutions managed by and serving black people exclusively was part of the resistance by black practitioners to segregation. They built and then directed their own medical schools, hospitals, and professional organizations, often with the support of white benefactors and friends. One of these undertakings was

Meharry Medical College. Begun in 1876 as the medical department of Central Tennessee College, its schools of medicine, dentistry, nursing, and pharmacy provided an ever-growing number of well-trained black practitioners.

In 1880, three years after he became Meharry's first graduate, Dr. James Monroe Jamison and others among the 18 Negro physicians in the state founded the Tennessee "Colored Medical Association."[4] No mention of this society, however, appeared in Dr. Miles V. Lynk's *Medical and Surgical Observer,* the first black medical journal in the United States, published at Jackson from 1892 to 1894.

Other state and local societies active in this period sustained the hope of an alternative for black physicians to the AMA. An editorial in the first number of Dr. Lynk's journal proposed the establishment of "an association of medical men of color, national in its character." At the Cotton States Exposition in Atlanta in 1895, this was accomplished. Originally called the "American Medical Association of Colored Physicians, Surgeons, Dentists, and Pharmacists," it subsequently became the National Medical Association. Many of the officers of the NMA, including its first president, Dr. Robert Fulton Boyd of Nashville, were Meharry alumni.

Having sprung up from local and state societies, the NMA encouraged the spread and strengthening of them. Three months before the NMA's 1903 convention in Nashville, the Medico-Chirurgical Society, comprising black practitioners in that city, invited their colleagues from across Tennessee to meet with them to organize a state society. On Aug. 20, 34 physicians, dentists, and pharmacists convened in the Capitol and founded the Negro Medical Congress of Tennessee. Its purposes, described in the constitution, were to "discuss, advise, and adopt the best means to disseminate hygienic measures for our people and for mutual help for our fellow laborers."[5] By 1915 this state association of black practitioners was known by its permanent name, the Volunteer State Medical Association.

Several of the association's first officers enjoyed national as well as local prominence. Dr. John A. Lester, the president, was a native of Lebanon, Tenn., and an officer in the alumni associations of both Fisk University and Meharry. The treasurer, Dr. Robert Fulton Boyd, founded Nashville's Mercy Hospital in 1900. Besides serving as a teaching facility for Meharry, it was one of the largest black hospitals in the South.

In reviving this state medical society during the depths of racial repression, black clinicians recognized that hygienic conditions in Negro neighborhoods and precincts followed from the political and social condition to which blacks had been reduced. Moreover, they saw that improvement in Negro health required an educational and preventive approach. Black physicians had little hope of influencing the regulatory or proscriptive power of the state against such perils of the ghetto as impure food, tenement housing, and vice; they could, however, educate black people to care for their own condition of health, and thereby assert a larger measure of control over their lives.

Urged by the state medical society to make particular, detailed investigation of the environments and modes of living among Negro Tennesseans, black physicians in their annual gatherings heard papers on sanitation, infant and child health, the evils of patent and proprietary medicines, and the prevention of hookworm, malaria, syphilis, pellagra, and tuberculosis. In a paper on hookworm, presented at the 1911 meeting in Chattanooga, Dr. J. W. Fowler of Nashville argued that the disease was not as widespread among Negroes as some believed. In support of this hypothesis, he described his study of some 3,200 patients who exhibited apparent symptoms of hookworm disease. In laboratory investigation done at Meharry, Dr. Fowler found that a majority had been attacked by some other parasite.[6] Papers on the diagnosis, etiology, and therapy of common diseases were also a part of the scientific sessions at each annual meeting. At the 1909 convention in Nashville, surgeons at Mercy Hospital and at the John T. Wilson Infirmary displayed their art, talent, and technique.

As was true of medical societies of white doctors, Tennessee's black medical association struggled to keep a sustaining number of interested, active members. In 1911 the president, Dr. H. M. Green of Knoxville, estimated that "out of more than 200 colored physicians engaged in the practice of medicine in the state today, there are scarcely more than 50 bonafide members of our state association." He urged that local societies be organized or strengthened, in order to stimulate interest in state and national meetings.[7]

In keeping with the inclusive nature of the state association, nurses, pharmacists, and dentists regularly led discussions of the roles of these branches of medicine. At the 1911 meeting a

dental section of the association was organized, with more than 20 charter members. Dr. J. A. Napier of Nashville was the first president. The specialization of dentistry eventually led the black dentists of Tennessee to obtain a separate charter for the Volunteer State Dental Association.

Nearly 100 delegates from across Tennessee attended the Knoxville convention of 1910. A specially chartered Pullman car brought a score of members from Clarksville, Fayetteville, Franklin, Whiteville, and other Middle Tennessee towns. Practitioners who worked in such rural communities depended upon their state association to renew and extend their knowledge as the technical complexity of medicine continued to expand. Names of small-town physicians appeared in each year's list of officers. The black physicians of Columbia were host to the 1904 meeting, while those of Dickson entertained their colleagues in 1914. At the 1915 meeting, Dr. A. F. Cody of Franklin presented a paper on "The Country Physician."

Medical societies offered black physicians from rural Tennessee the only opportunity to obtain continuing postgraduate training. By 1920 daily clinics were a part of every annual meeting of the state society. A survey of 25 black physicians practicing in West Tennessee that year showed that 13 attended clinics at least once annually.[8]

Black medical societies in the cities formed other roots and branches of the state association. Black doctors of Knoxville were organized as the Knoxville Medical and Surgical Society. Practitioners in Memphis had the Bluff City Medical, Dental, and Pharmaceutical Association. Chattanoogans formed the Mountain City Academy of Medicine, Dentistry, and Pharmacy. In Memphis there was also organized in 1914 the Medical, Dental, and Pharmaceutical Association of Arkansas, Mississippi, and Tennessee. Familiarly known as the "Tri-State Society," it assembled what its president, Dr. R. G. Martin, called the "largest gathering of scientific men and women of our race in the South."[9]

Reorganized periodically under various names, the Negro medical profession of Nashville spoke for the moral, social, and economic uplift of that city's black community during an age of municipal reform. The society sponsored an annual health week and occasional public meetings on pellagra, hookworm, and tuberculosis, where black physicians and city officials spoke from the same podium. Dr. Robert Fulton Boyd, president of the black Anti-Tuberculosis League, noted the improvements to be seen in the city's Negro neighborhoods as a result of these activities. Individually and collectively black doctors were also active in the Negro Board of Trade and in numerous fraternal, sectarian, religious, and social organizations of Nashville.

Beginning in June 1910, Nashville's black medical society conducted annual summer clinics at Meharry to treat victims of disease who could not afford to pay. As a result, said society president Dr. Arthur M. Townsend, these charity patients would not have to go to "some other institutions, where under the garb of nice treatment and free service, they take advantage of our people for experimental purposes."[10] Known as the Rock City Academy of Medicine at this time, the black medical society of Nashville was eventually named for Dr. Robert Fulton Boyd.

During the period under study, practitioners of medicine, dentistry, nursing and pharmacy formed an influential part of a small black bourgeoise in Tennessee. Also including teachers, bankers, publishers, realtors, lawyers, and undertakers, this class was both a model of black achievement and an anchor for a community thrust by the social pathology of racism upon its own resources. Black medical societies and other occupational fraternities represented the achievement and accomplishment of black people in the face of repression. The institutional complexity of the black community during this period, including its organized medical profession, merits further research.

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Knowledge and Use of Medications In a Group of Elderly Individuals

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It is well known that the elderly constitute about 11% of the population, but in 1978 they accounted for over 25% of the total national expenditure for medications.[1] Various studies have estimated that noncompliance with medications in the elderly ranges from 25% to 50%,[2] but most studies of compliance have not distinguished between essential and nonessential medications. In addition, it is known that the rate of toxic reactions to medications is higher in older persons. Studies of hospitalized elderly persons in Belfast, Ireland[3] and at the Johns Hopkins Hospital[4] indicate that adverse drug reactions are approximately doubled in the aged. Furthermore, as much as 40% of the medications taken by ambulatory older individuals are nonprescription preparations,[5] compounding the problems with medication use in the elderly.

Since medications are potentially quite toxic in the elderly, noncompliance with nonessential medications could, in a sense, be beneficial. We have undertaken this study of elderly persons living in a high-rise apartment building to determine whether compliance is greater for essential than for nonessential medications. As a corollary to this, the study attempted to assess the older person's knowledge about medication purpose and side effects, as well as the degree of use of nonprescription preparations.

Methods

A random sample of 78 names was drawn from a list of residents in a high-rise apartment building, which is Housing and Urban Development Section Eight Housing. Six of the 78 did not have a telephone. The remaining 72 were contacted by telephone and asked to participate in an interview study. Forty (56%) agreed to be interviewed. The remaining 32 were sent questionnaires to determine why they refused and how they might differ from those who chose to participate. Nineteen (59%) responded to the questionnaire.

Subjects who agreed to be interviewed were seen twice in their homes by a trained interviewer using a structured format. The first interview lasted about 45 minutes and contained questions about life-style, perception of health, source of medical care, testing of vision and mental status, and a pill count of each prescription medication. Subjects were also questioned about the purpose and side effects of each medication.

A second interview was conducted about two weeks later. This interview included a repeat count for each prescription and a listing of all nonprescription medications used. The purpose of this visit was not explained in advance.

Each prescription medication was coded as essential or nonessential, based on the judgment of a panel consisting of a faculty internist (WBA) and a faculty pharmacist (KR). A drug was coded as essential if it was felt that it was necessary for the maintenance of the health or function of the user. An attempt as made to err on the side of calling a medication essential if there was any doubt. An example of an essential drug would be an analgesic with anti-inflammatory properties, a diuretic, or digitalis. Nonessential drugs included analgesics without anti-inflammatory properties, sedative-hypnotics, or medications of questionable efficacy, such as papaverine. Noncompliance was defined as use of a medication at a rate more than 10% over or under the prescribed regimen listed on the medication bottle. Each subject was asked to assess his financial sit-

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Reprint requests to 66 N. Pauline, Memphis, TN 38163 (Dr. Applegate).

uation and state of health by responding to questions with a Likert scale. Mental status was tested by use of the Short Portable Mental Status Questionnaire, and visual acuity was assessed using a hand-held eye chart.

Interviewees were accepted as having some knowledge of medication purpose if they could indicate the target organ system or any general statement of medication function (heart pill, fluid pill, etc.). One correct statement of medication purpose was accepted as evidence of knowledge. A person was accepted as having knowledge of possible medication side effects if any one statement of side effects was correct. For those choosing not to be interviewed, the questionnaire covered demographic characteristics, self-assessed state of health, and the number of prescription and nonprescription medications used.

Results

Table 1 compares the characteristics of those who consented to be interviewed with those who did not but returned a questionnaire. There were no differences between interviewees and questionnaire respondents with regard to age, race or sex, but questionnaire respondents reported a poorer perceived level of health, while at the same time reporting lower use of both prescription and nonprescription medications. The interviewees were typically elderly white widows. Eighty percent of those interviewed classified themselves as financially secure, or as having adequate finances. Inadequate vision was not a problem among those interviewed since corrected vision was fair or good (better than 20/50) in 89% of those tested. Eleven percent had vision worse than 20/50. Sixty-five percent were ambulatory without assistance, and none of the persons interviewed were confined to their apartments. Seventy-three percent had a mental status score of eight or better, while 27% had less than eight, with the lowest score being six. Fifty percent of those interviewed listed their health as good or excellent, while 30% listed their health as fair, and 20% as poor. Most of the persons interviewed had a recent contact with their physician: 60% within the last month, and another 35% within the last year. Fifty-five percent of those interviewed picked up their own medications, while 34% had them delivered, and 11% relied on family or friends. Finally, 92% administered their own medications, while 5% relied on others.

TABLE 1

PATIENT BACKGROUND

	Questionnaire Group Characteristic (n=19)	Interviewed Sample (n=40)
Average age	74.2 years (+ 2.36 SE)	71 years
Sex	73% female	95% female
Race	83% Caucasian	83% Caucasian
Health	100% fair or poor	50% fair or poor
Prescription medications	3.06*	4.6
Nonprescription medications	1.13*	3.75

*$P<0.05$

TABLE 2

MEDICATIONS AND COMPLIANCE AMONG INTERVIEWEES

Mean nonprescription drugs	4.6 (0-11)
Mean prescription drugs	3.75 (0-18)
Prescription drugs	
Essential	90 (60%)
Nonessential	60 (40%)
Compliance, prescription drugs	
Essential	67%*
Nonessential	43%

*$P<0.01$

As shown in Table 2, nonprescription medications among those interviewed outnumbered prescription medications (4.6 vs 3.75). Of the prescription drugs, 60% were judged essential and 40% nonessential by our panel. Compliance was higher with essential medications (67% of all medication instructions were complied with) than with nonessential medications (43% compliance), ($P<0.01$). Differences in prescription labeling did not account for the difference in compliance; essential drugs were labeled with the drug name 94% of the time, and regimen 83%, while nonessential medications carried the name in 88% and regimen in 95% of the cases.

Knowledge of medication purpose was common (91% of essential and 83% of nonessential drugs), but knowledge of the possible side effects was quite low in both classes (12% of essential and 20% of nonessential medications). Compliance with essential and nonessential medications tended to be less in those whose mental status score was eight or less, but this trend did not

TABLE 3

MENTAL STATUS AND COMPLIANCE

	Mental Status >8	Mental Status <8
Total population (persons)	n=29	n=11
Compliance, essential drugs	72%	55%
Compliance, nonessential	55%	25%

reach the level of statistical significance (Table 3). Neither perceived level of health nor self-evaluated financial status was significantly related to compliance for either category of medication. Individuals who rated their health as good or excellent used a lower average number of prescription drugs (3.72) than those who felt their health was fair or poor (5.72), but there was no significant difference in the use of nonprescription medications.

Discussion

Our finding that the elderly persons in this study tended to comply with two-thirds of their essential medications, but less than one-half of the nonessential medications, is not surprising. The overall compliance rate is very similar to that reported in the past.[6] Since knowledge of medication purpose was high, it is possible that the lower compliance with nonessential medications reflects a conscious decision, although we cannot confirm this. A number of past investigations have emphasized the failure-of-comprehension aspects of patient noncompliance, focusing on the complexity of the regimen[7] and the manner of instructing the patient.[8] However, the existence of a failure-of-volition component of noncompliance has been previously suggested,[6] and the reported predominance of underuse[9] among patients who do not take their medication as instructed is consistent with the idea of "beneficial noncompliance," a view advanced in another recent study.[2]

The division of medications into essential and nonessential categories is supported by several articles reporting the use of an excessive number of medications in elderly[10] and urban[11] patient populations. It is also implied by the use of incentive schemes[12] to reduce the use of pro re nata (PRN) pain medication, pain behavior, and reports of pain. If nonprescription medications are classed as nonessential, then 73% of the medications taken by our study group were nonessential. As mentioned previously, nonprescription drugs used outnumbered prescription drugs. This is not unusual, since other studies have reported greater or equal use of over-the-counter as compared to prescription preparations.[13,14] Although reported medication use by those who responded to the questionnaire but refused an interview was lower, it is likely that actual counting of the individual's medications in an on-site interview would have revealed higher usage for these persons as well.

Another surprising finding is that our study population could accurately describe potential side effects for only 15% of their prescription medications. Since several studies indicate that the elderly are more likely to have adverse reactions to their medications, it seems to us that patients should be aware of the most common potential side effects for all their medications. Finally, it is interesting to note that the 50% of the sample who perceived their health as good or excellent still use over three prescription and four nonprescription drugs.

In conclusion, we found that a high proportion of medications used by the elderly persons in this study were nonessential, but it appears that they comply less well with these medications; this is possibly beneficial noncompliance. Such decisions might have been facilitated by knowledge of most of the persons interviewed of the purpose of their medications. Unfortunately, knowledge of potential medication side effects was low.

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Medical Office Automation...Now?

MICHAEL J. KEYES, M.D., and EDGAR H. PIERCE, M.D.

Introduction

Since 1975 the price of computer components has been reduced 99% making small computers affordable to much of the population, physicians included. This has become known as the "computer revolution," a term that may understate how these mysterious little machines will affect the lives of everyone in the future. Because doctors are traditionally accepting of new technology, and because the computer has already changed the mode of practice for most physicians via the CT scanner, one would think they would embrace automating their practices now that it is affordable. While many doctors are very interested, most feel awkward when addressing the question, and are usually ignorant of the needs that such machines can fill. Our purpose in writing this paper is to provide information to the physician contemplating the purchase of an office computer so that he may make informed decisions while avoiding some of the pitfalls common to such endeavors.

Why Computerize?

There are three main reasons for purchasing a computer: business, medical, and personal; each of these must be examined before a decision is made. Despite the tremendous price drop over the past ten years, a computer system is still a major purchase and any system for business or practice will need specialized software (programs) to make it work. If careful analysis is not made before the money is spent, a physician can end up with a technologically advanced white elephant. Such analyses can be made by either the doctor or a hired consultant, and are the base upon which a well-designed office system is built.

Introducing a computer into his office forces the physician to evaluate his entire business practice, something he almost never wanted to do and certainly never was trained to do. He must take into consideration the effect on his billing, his patients, and his staff, especially the last. If it can be established that a computer can do the work of a clerk who must otherwise be hired in an expanding practice, or that such a device will free up staff to help improve patient care, then a computer system makes good business sense. A computer never takes coffee breaks, rarely gets sick, and can be depreciated over three years. Patients often appreciate the speed and order that is brought to the office through computerized scheduling of visits and payments. Word processing can cut down on the time for producing a document by as much as 50% by checking spelling and grammar and filling out that bane of all offices, the insurance form. Computers also keep records better than any human being can, since they excel in such tedious tasks as sorting and searching.

All of this requires the cooperation of staff and the enthusiastic leadership of the physician. If the staff balks at the idea of automation, their wishes must be strongly considered since they operate the office. In a small business, manual posting and secretarial systems are accurate and efficient, and introduction of a computer may make it less so. The larger and more complex the practice the more useful automation becomes, but size should not be the only criterion for buying a computer system.

The second reason for buying a computer is the improvement of patient care. Today a doctor can search 25 million documents through the use of Dialog, an "information base" sponsored by Lockheed, without leaving his office. Medicine is one of the most information-intensive professions in the world and in the next two years many more information utilities will spring up, some good and some bad, but all accessible through the computer. All that will be necessary to use (the word is "access"—doctors will have to learn a whole new class of jargon, much of it, like "access," ungrammatical) any of these will be a phone, a linking device called a modem, a terminal program, and a computer or computer terminal. Such devices are inexpensive, and are

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available for lease from many companies. Computers can also be used in writing reports by taking the raw information fed to it by the physician, processing it, and then printing the interpretations programmed into it by the doctor. Histories can be taken via computer, psychological tests can be scored, and a waiting patient can amuse himself while waiting for the doctor to come in. The applications are limited only by the imagination of the programmer/physician.

The third reason to buy is personal—computers are very seductive machines (add "computer widow" to the jargon list) which change the way a person looks at the world. Almost any human endeavor can have a computer application, and the most common personal computer program is an "electronic spreadsheet," which can be used to keep books, predict business trends, and anything in between. This last is our reason for buying our first computers and the one that makes the least business sense; but who said it was all business anyway?

Analysis of Needs

As it is a business purchase, a doctor must make a careful analysis before buying. The computer must make the office more efficient or it would be a waste of money. Check with your colleagues who have bought one. Every physician will own a small computer or terminal within the next five years because of the opportunity to take advantage of the information explosion that has hit medicine. "Data base utilities" will abound, and use of these machines will become as common as stethoscopes. Finally, owning a computer can change an entire life-style if allowed to; many will own one simply because of the new dimension it will bring.

Doctors' offices where little attention is paid to productivity, efficient work flow, or modern information handling methods have been characterized as "pre-industrial." These offices run on an informal arrangement characterized by trust, understanding, and loyalty. An employee is expected to learn his job, do what is needed, and be flexible enough to cater to the whims of the main income-producing partner, the physician. This type of organization works well so long as patient volume remains low and efficiency is not required to process the work. As soon as things become complex, the system breaks down and the usual answer, to work harder, fails to be effective. The physician(s) is faced with rearranging his office practice along more efficient lines, and is often in a dilemma. The historical answer has been to use assembly-line tactics, with each employee having specific tasks to perform, and the patient ends up dealing with a number of clerical and treatment staff. This approach has been criticized often enough by patients who begin to feel neglected, and may be the main reason many people avoid the use of clinics. This centralized procedure has other disadvantages, chief among them the temporary (and often even permanent) loss of information that occurs either due to mistakes being made somewhere along the line, or to the time it takes for clinical or billing information to reach the end point in an inflexible trail. Workers in this type of environment tend to become bored and protective (i.e., "that's not my job"), attributes that can destroy the loyalty and family atmosphere that many doctors find attractive about office work. The production-line approach also generates a lot of paperwork, which tends to introduce many errors and to alienate workers and patients.

Since many of these repetitive tasks can be handled by an office computer, this switch to automation has many doctors eager to buy as soon as possible. The computer is not, of course, a panacea, and may make things even worse, but if a physician knows that a computer is in his future, he must first analyze his needs and buy judiciously.

Office work is an amalgamation of various tasks and no two doctors' offices perform these tasks alike. This means that each office must choose its equipment to suit the way it does business. In some practices billing is the most pressing problem, while in others, such as a superspecialist practice, word processing may be paramount. Group practices may see value in the scheduling and message features of an automated office. Finally, the capability of storing all records on a magnetic medium is appealing to those practices requiring large amounts of storage space. Often a group practice has mixed needs that will require a system that can fulfill all of these requirements to some extent. Which system to buy is the most crucial decision in the acquisition process, and should be thought through thoroughly and systematically.

Selection of Equipment

Since every vendor sells equipment that may differ substantially in capability, features, and price, it is important that criteria be set up which reflect the office needs. These criteria are gen-

erally architectural and technical considerations, billing and form handling capabilities, word processing functions, ease of learning, other features and functions, service and support, and cost. Each of these categories has a list of specifics that can serve as a checklist for the shopper. Since each practice has different needs, a relative value for each item on the list should be assigned and each product be graded accordingly. Before buying the equipment an effort must be made to determine how well it will fit into the way the office is run and whether it will disrupt the environment to such an extent as to destroy the efficiency and ambience that characterizes the practice. A final consideration is planning the implementation of the automated office. If presented properly, computerization can be adjusted to quickly and easily, resulting in an efficient happy staff who have more time to devote to patient care and handling.

The usual rule of thumb is to buy the software and fit the hardware to the program(s). This means that one must know what the office does, which tasks are boring and repetitious (and therefore suited to computerizing), and what new features you want for the office. In a large organization a small task force consisting of key personnel from each division should make up the checklist, weighing each item and setting minimum criteria. This group or person should then set a time limit for exploration and purchase so that clear cut goals be set. Some flexibility should be built into the plan because changes are almost always necessary. Much time can be saved by visiting other offices that have bought systems in order to see the problems and good points of each. Visit business computer shows and vendors, and above all read as much as you can about the subject to determine what will be on your checklist. Look for such items as ease of use, flexibility, costs, service, and customer support. When asking for a demonstration, bring along samples of the office reports to see how the software and the computers deal with this information. Don't allow the vendor to take advantage of your initial confusion and offer an "analysis" of your needs. In the history of man there has probably never been a study of this type that did not recommend a computer system and that recommended someone else's product. If possible, take the system to your office for a few days and use it, eliciting comments from the staff. Some vendors will be reluctant to allow this but you might remind them that you are serious about buying and let the market take care of the rest.

The next step is to write up a detailed proposal of needs, including a fair amount of detail, since no two machines are alike. Your checklist and the results of your equipment exploration will serve as the basis for this proposal. Be sure to specify the software needs for your office, the number of work stations needed, the number and type of printers, cabling needs, architectural changes, amount of storage, communication requirements, backup capabilities, delivery time, and cost range. This proposal can be sent out to vendors who should (but may not!) return them with a bid. These bids will require careful comparison based on a table of weighed values. Such a table should grade hardware, software, service, support, and the reaction of the office staff. Buy only available equipment from a vendor who will be in existence five years hence with the appropriate service facilities. Don't be afraid to wait a few weeks to get a piece of superior equipment, even if it means extending your deadline. Plan for the future and buy equipment that has more capacity than you presently need or that can be expanded. Don't forget to be a hard bargainer; you are in a buyer's market and the markup on these machines is incredible. Try to get as many free extras as possible.

Installing the System

Planning for implementation, especially in a large office, is crucial and may determine whether or not a disaster will occur. Technophobia occurs in almost every office that becomes automated, and may be seen when any new piece of equipment is introduced. One advantage a physician's office may have is that the use of gadgets tends to be extensive and the office staff may not be intimidated by a word processor; one cannot count on this, however, and it is best to involve the staff in the decision-making process by asking them their needs when formulating the checklist, assigning research tasks when trying to decide on the specific equipment, and weighing customer support highly when evaluating bids. The equipment should be introduced gradually and run parallel to the old routine for up to six months in order to get all the bugs out while introducing the benefits to the staff. Stress the fact that the boring tasks are reduced or eliminated, that they are learning marketable skills leading to improved career opportunities, and that effi-

ciency may lead to higher pay scales. More intangible but no less important are the freeing up of time to devote to patients and the ability to make sounder business decisions.

The final job is the actual physical introduction of the system into the office. Once the task of preparing the staff has been taken care of, the physical structure of the office may have to be changed. Individual or group work stations revolving around the CRT may be devised. Soundproofing and static electricity reduction will necessitate changes in the work space. Initial training of the staff should begin as the equipment is installed, and this training should include at least one physician who may have to make executive decisions concerning the office at some time in the future. Office supplies need to be organized, and records should be converted to accommodate the new system. Procedures must be devised to keep the work flow smooth, and should include methods to measure productivity, establish patient handling standards, performance evaluations, billing and accounting procedures, and starting up and shutting down procedures, with periodic backup of records. After the system has been installed for some time, an evaluation, possibly by an independent group, will help you see whether or not your objectives have been met and what plans can be made for the future.

Conclusions

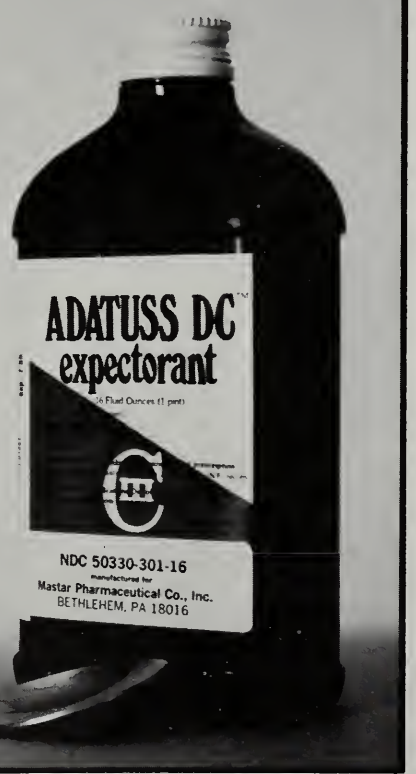
Automating the physician's office is not a simple task, but if time is taken to do the job correctly, it can be very rewarding. A careful study of needs will reveal what sort of equipment will be helpful, and careful evaluation of software, hardware, vendors, and staff will lead to a more efficient and helpful office, allowing for more time to devote to quality patient care.

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Guidelines to the Essentials for Accreditation of Sponsors of Continuing Medical Education

The House of Delegates at its 1982 Annual Meeting approved the Essentials for the Accreditation of Sponsors of Continuing Medical Education developed by the Accreditation Council for Continuing Medical Education (ACCME), contingent upon the approval of the guidelines to be used by the ACCME in its accreditation of national sponsors of continuing medical education.

The Council on Medical Education offered the services of its Continuing Medical Education Advisory Committee to prepare a draft of guidelines for the ACCME. This offer was accepted by the ACCME.

Guidelines were prepared by the Continuing Medical Education Advisory Committee, discussed at the AMA 10th Annual Conference on Continuing Medical Education, and amended by the Council on Medical Education in the light of these discussions. The ACCME approved the draft with minor modifications at its Oct. 29, 1982 meeting.

ACCME Essentials for Accreditation of Sponsors of Continuing Medical Education and Guidelines

Guidelines to the Essentials have been developed in order to explain in greater detail the meaning and application of the Essentials and to provide information to sponsors on how they can comply with the Essentials. These guidelines are not intended to limit the manner in which sponsors may meet the requirements for accreditation. Examples cited are intended only for clarification, not as indications of preferences or priorities. The guidelines follow the organizational structure of the Essentials. The text of the introduction and each Essential with its explanation and rationale is given first, followed by the corresponding guidelines.

Introduction

The Accreditation Council for Continuing Medical Education (ACCME) conducts a voluntary accreditation program for institutions and organizations providing continuing medical education (CME). By evaluating and granting recognition to an institution or organization whose CME program substantially complies with the standards or Essentials, the ACCME seeks to improve the quality of CME and to assist physicians in identifying CME programs which meet these standards.

The ACCME recognizes that the professional responsibility of physicians requires continuous learning throughout their careers, appropriate to the individual physician's needs. The ACCME also recognizes that physicians are responsible for choosing their own CME and evaluating their own learning achievement. The Essentials, therefore, are designed to encourage and foster self-directed physician participation in CME, in which physicians assume full responsibility for the choice of their CME activities in accordance with their perceived needs, individual preferences of learning methods, and practice settings. Sponsors should take into consideration the needs and interests of potential physician participants in planning their CME activities, and encourage these physicians to assume active roles in the planning process.

In the Essentials the ACCME has identified certain elements of organization, structure, and method which appear to contribute significantly to the development of CME. They are presented here in the *Essentials for Accreditation of Sponsors of Continuing Medical Education* (Essentials). The Essentials are made up of those requirements which a sponsor must substantially meet for accreditation. An explanation and rationale are also provided. The Essentials should prove valuable as a resource for physicians planning their own CME and for sponsors designing CME programs.

The ACCME will review the Essentials on a continuing basis and will modify them as knowledge and experience dictate.

It is important to note that the ACCME does not accredit individual CME activities, but institutions and organizations for their overall program of CME. The overall program consists, at least in part, of one or more educational activities, developed according to these Essentials, which provide direct teacher-participant interaction.

The following definitions will be useful in reviewing the Essentials and in gaining an understanding of the accreditation process:

- *Continuing Medical Education (CME):* Continuing Medical Education consists of educational activities which serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships that a physician uses to provide services for patients, the public, or the profession. The content of CME is that body of knowledge and skills generally recognized and accepted by the profession as within the basic medical sciences, the discipline of clinical medicine, and the provision of health care to the public.

This is AMA Council on Medical Education Report B, submitted to the House of Delegates at its Interim Meeting in December, 1982.

- This broad definition of CME recognizes that all continuing educational activities which assist physicians in carrying out their professional responsibilities more effectively and efficiently are CME. A course in management would be appropriate CME for physicians responsible for managing a health care facility; a course in educational methodology would be appropriate CME for physicians teaching in a medical school; a course in practice management would be appropriate for practitioners interested in providing better service to patients.
- Not all continuing educational activities which physicians may engage in, however, are CME. Physicians may participate in worthwhile continuing educational activities which are not related directly to their professional work, and these activities are not CME. Continuing educational activities which respond to a physician's nonprofessional educational need or interest, such as personal financial planning, and appreciation of literature or music, are not CME.
- *Purpose of CME Accreditation:* To assure physicians and the public that CME activities meet accepted standards of education.
- *CME Accreditation:* The recognition accorded eligible institutions and organizations which meet the Essentials.
- *Program of CME:* The overall CME program of a sponsor consists of one or more educational activities consistent with the Essentials.
- *CME Activity:* A coherent educational offering which is based upon defined needs, and explicit objectives, educational content, and methods.
- *A Sponsor:* An institution or organization assuming responsibility for CME.
- *A Participant:* A physician engaged in CME.
- *The Essentials:* The document which provides information regarding ACCME accreditation and the standards which must substantially be met for a sponsor of CME to be accredited.

Program of CME. Accreditation is granted on the basis of the sponsor's demonstrated ability to plan and implement CME activities in accordance with the Essentials. The sponsor's overall program may include occasional CME activities that do not fully meet the standards for needs assessment, well-defined objectives, curricular design, and evaluation. These activities are part of the accredited sponsor's overall CME program as long as the sponsor exercises responsibility for these activities through its recognized CME administrative unit. The organization should identify those CME activities within its overall program which meet the Essentials.

Designation of CME credit relates to the requirements of credentialing agencies, certificate programs, or membership qualifications of various societies, and the accredited sponsor is responsible to these agencies, programs, and societies in the matter of designation of credits and verification of physician attendance. The designation of credit for specific CME activities is *not* within the purview of ACCME or of the state medical associations as accrediting bodies.

The Essentials

The following seven Essentials comprise the criteria, or standards, by which eligible sponsors of CME are evaluated in order to determine their qualification for accreditation by the ACCME.

Essential #1

The sponsor shall have a written statement of its CME mission, formally approved by its governing body. The mission statement shall (1) describe the goals of the overall CME program in a concise manner, (2) indicate the scope of the CME effort, (3) outline the characteristics of the potential participants, (4) describe the general types of activities and services provided.

Explanation and Rationale

In order to provide quality CME, it is essential to have a written mission statement which has been agreed upon by the governing body. This statement outlines what is expected of the CME organization and serves as a basis for a more objective evaluation of its ability to meet its mission. Without such a document, there may be misunderstandings as to the scope and nature of the CME activities undertaken. With an agreed-upon mission statement, the CME organization can more easily seek needed support from its governing body to accomplish its required functions.

Guidelines

The mission statement identifies what the sponsor desires to accomplish through its overall program of CME. It describes the educational goals of the overall program in terms of content or expected learning, the physicians for whom the educational program is intended, and the general kinds of educational activities and services which will be used to accomplish these goals. It is desirable to relate the educational goals of the overall program, as found in the CME mission statement, to the primary purpose or mission of the sponsor as an institution or organization.

The mission statement should serve as an effective point of reference for individual CME programming and evaluation of the overall program. The mission statement should be periodically reviewed in the light of experience and revised if necessary.

Essential #2

The sponsor shall have established procedures for identifying and analyzing CME needs and interests of prospective participants. The sponsor shall (1) document the processes used to identify CME needs, including data sources which go beyond the sponsor's own perception of need; (2) state the overall needs identified by the above processes and indicate how this assessment is used in planning educational activities.

Explanation and Rationale

Identification and analysis of CME needs (needs assessment) provides the basis for formulating educational objectives and planning educational activities. Needs assessment results in a statement specifying instructional intent and/or expected learning outcomes.

Needs may be perceived and/or identified by both the physician participant and the sponsor. Setting priorities for identified needs will assist the sponsor in planning educational activities.

Guidelines

Educational needs and interests refer to any knowledge, skill, or attitude that physicians either should or wish to acquire, develop or reinforce. Participants should be treated as professionals with respect for their knowledge, experience, and self-motivation. Therefore, a goal for every CME activity should be to increase, or at least to maintain, the participants' desire to continue their medical education. This important goal of CME should be kept in mind when designing the activity, i.e., choosing the educational methods, selecting instructors, and determining methods of evaluation. The way that educational subjects are presented, as well as the instructor's manner with participants, influence the motivation of physicians not only to learn during the activity but to continue learning after the activity is completed.

The sponsor may use a wide variety of procedures to identify needs, such as a sample survey interview of prospective participants, analysis of self-assessment examination results, epidemiological data, patient care audit, or a search of current literature or consensus of experts in a particular field. The sponsor should attempt to weigh the relative importance of the needs identified, and determine the planning of CME activities and use of resources with these priorities in mind.

The term "need" usually connotes some degree of necessity or obligation. The necessity or obligation may arise from a physician's sense of responsibility to maintain or improve personal professional activities. This necessity or obligation may also arise from external requirements of some organization or agency such as a licensure board, certifying agency, specialty society, or hospital staff.

The term "interest" connotes an educational want or desire. Physicians may desire some knowledge, skill, or attitude not perceived as necessarily directly applicable to their medical practice. For instance, a physician may desire to learn more about a particular development in his medical research yet realize that this knowledge may not be directly applicable in his medical practice. CME based on interests has a place in the continuing education of physicians. Interests, however, should not be the only or primary criterion of choice for physicians.

An educational need may be "real" yet exist independent of the awareness of the physician. A real need becomes a "perceived" need when the physician is aware of it. Unless physicians perceive an educational need as their own, any CME activity based on that need is unlikely to be successful in effecting real learning or in attracting participants. If the educational need is real, but unperceived, physicians may need assistance recognizing that need.

An *educational need* is not the same as a performance need. Needs identified by quality assurance programs, for instance, do not necessarily indicate a lack of knowledge or skill. Sponsors may wish to analyze performance needs to determine whether there is, in fact, a need for physician learning and not assume that performance deficiencies can be successfully addressed through educational activities.

Essential #3

The sponsor shall have explicit objectives for each CME activity. The sponsor shall (1) state the educational need(s) which the individual activity addresses; (2) indicate the physicians for whom the activity is designed; (3) list any special background requirements of the prospective participants; (4) highlight the instructional content and/or expected learning outcomes in terms of knowledge, skills, and/or attitudes; (5) make these objectives known to prospective participants.

Explanation and Rationale

Clearly stated objectives provide prospective participants with a realistic understanding of the nature and purposes of the CME activity. This allows prospective participants to select educational activities which meet their needs. It also helps sponsors to target educational activities to meet explicit needs. A CME activity which takes place over a period of time, e.g., weekly grand rounds, may be covered by a single set of objectives.

Guidelines

The development of objectives serves three functions: (1) assisting sponsors in planning, designing and implementing educationally effective activities; (2) assisting sponsors in evaluating the quality of CME activities; and (3) assisting prospective participants in judging whether or not a CME activity meets their needs or interests. The adequacy of a sponsor's development of objectives depends on how well these objectives fulfill these three functions.

Explicit objectives means that the objectives are clear and of sufficient detail so that they are capable of fulfilling the three functions outlined above. Objectives need not be overly detailed.

These objectives should relate to the needs identified in Essential #2. Such needs might include updating existing medical knowledge or technical skills, the learning of new concepts or methods, or the sharing of new ideas and experiences to stimulate the development of knowledge or skills.

An objective that is properly conceived and clearly stated constitutes an important link in the educational chain. Good objectives are formulated from identified needs or interests and written in terms that facilitate evaluation. Clear objectives aid in judging the success of the CME activity.

In contrast to goals, which are general and long-range, objectives are specific, short-range, and more action-oriented. Objectives may be defined with respect to instructional content, levels of knowledge or performance, degrees of skill or technique, and changes in attitude or behavior relating to patient care that are the desired results of the CME activity.

Keeping one or more of the following questions in mind may help in developing good objectives: Will attainment of these objectives meet the identified needs? What will the participants be expected to know or be able to do as a result of the CME activity? How is the participant's attitude or behavior expected to change? How do these relate to patient care or other profes-

sional activities? Can attainment of the objectives be measured or evaluated?

The Essentials place great importance on the principle that physicians are responsible for choosing their own CME, in accordance with their perceived needs, preferred learning methods, and practice settings. In accordance with this principle, sponsors must make known to prospective participants the objectives of the activity, indicate the physicians for whom the activity is designed, list any special background requirements for effective participation, and state the educational methods that will be used. This information should appear on promotional materials and printed programs. Individual educational objectives need not be stated for each part or unit of an activity if the objectives are apparent or if they are summarized in the CME activity description.

Each CME activity should be described in terms of the broad or specific groups of physicians for whom it may have value. For example, a particular CME activity may be intended to bring a new medical concept to the attention of an entire specialty group or to a range of related specialty groups, or it might be a more limited concept intended for a subspecialty group.

A prospective CME participant should be informed as to the levels of skill or knowledge required for full participation in, and comprehension of, each CME activity. For instance, it may be suggested that each participant review a specific area of regional anatomy before participating in a CME activity in order to better comprehend the specific surgical procedure or diagnostic technique to be introduced or discussed. One might also be requested to review the broad classification of tumors of a specific area in preparation for a better understanding of the more detailed presentation of the management of tumors of this area.

When parts or units of a CME activity are integrally related to the entire activity, one set of objectives may be sufficient. This applies whether the parts or units of an activity are united in time (e.g., a three-day conference) or appear as distinct units over a period of time (e.g., grand rounds).

Essential #4

The sponsor shall design and implement educational activities consistent in content and method with the stated objectives. The sponsor shall (1) design and implement educational objectives responsive to the characteristics of prospective participants, such as knowledge levels, professional experience, and preferred learning styles; (2) document use of systematic planning procedures; (3) make educational content and methods known to prospective participants.

Explanation and Rationale

After the identified needs have been translated into explicitly stated educational objectives it is important to design and implement educational activities in a way that facilitates meeting the objectives. The selection and organization of content, and decisions about educational formats, methods, media, and faculty should be based upon what seems most effective and efficient in meeting these objectives. These same elements pertain to sponsored CME activities which provide information and assistance to physicians engaged in self-directed learning.

Guidelines

The term "*sponsor*" is comprehensive, referring to the institution/organization accredited for its overall *CME program*. Implicit in the use of this term is the fact that a number of people with different responsibilities may be involved in the design and implementation of the CME activities that comprise the CME program. A group that is representative of the institutional/organizational membership (usually designated the "education committee") usually has the responsibility for the operational aspects of the CME program.

Design and implementation of CME activities implies systematic *planning*. Planning of *any* CME activity, ranging from a one-hour conference to a multi-day symposium, involves a sequence of tasks, with each successive step depending upon completion of the previous one.

An initial step should be to review evaluation data from previous similar CME activities when available.

A major consideration is the *characteristics of prospective participants*, i.e., for whom the CME activity is primarily intended/designed, viz., certain specialists or the entire medical staff. After identifying the "target group," one should make preliminary assumptions regarding participants' current knowledge levels in the subject matter, past professional experiences, and types of learning methods appropriate for that group and subject.

A closely related task is *needs assessment*, (Essential #2) i.e., "Why is this CME activity being held?" Whatever the method used to identify needs, the assessment should determine whether acquisition of information, knowledge or skill is the basic need, or whether a review/refresher, an update, or presentation of new concepts is required.

A next and important step is the development and statement of *objectives* for the CME activity (Essential #3). There should be a clear, concise statement of what the participants should learn and/or be able to do as a result of the CME activity. Such a statement, evolving from the previous planning activities, provides a useful focus for the participants and for the teachers. This can be especially valuable when there are many and varied CME activities available to the physician. For the teacher, it should determine preparation and selection of teaching methods.

Selection of "*faculty*," i.e., the person(s) who will be invited to conduct the CME activity, is determined by several factors: foremost, the availability of competent and enthusiastic individuals; the level of expertise required; the extent of preparation necessary; and available resources. Good faculty can often be identified with one's own organization. External faculty should be selected to meet the defined objectives and not primarily for their charisma.

Effective planning requires that the format and educational methods be appropriate to the objectives. Sufficient time should be allocated for faculty and participants to accomplish the objectives. Optimal opportunity should be given to participants to be involved actively in implementation of the CME objectives.

Evaluation of the activity (Essential #5) is an integral part of the planning and should be incorporated into the design. Whether the activity is simple or complex, short or long, some form of evaluation should be planned. At a minimum, participants should provide feedback regarding achievement of the objectives, i.e., were CME needs met. Additionally, effectiveness of the educational method, the faculty, and other aspects of the activity can be critiqued. Evaluation completes the process cycle and should lead to refinements in planning for future CME activities.

Other tasks pertain more directly to implementation of CME objectives and include scheduling, arrangements for facilities, audiovisual equipment/services, preparation of educational materials, i.e., handouts, slides, transparencies, etc. Decisions regarding these aspects should be made in collaboration with, and under the guidance of, the person(s) responsible for the CME program.

The Essentials encourage and foster self-directed learning in the sense that physicians should be actively responsible for their own CME. Physicians are encouraged to identify their own educational needs and interests and to develop plans to meet these needs and interests. Effective planning for a self-designed educational program would include the elements of identification of need, development of educational objectives, choice of appropriate educational activities, and evaluation. The educational activities chosen may include a variety of forms, from reading to formally organized courses. A time schedule for completing the self-designed program is highly advisable.

Some physicians may desire assistance in developing self-designed educational programs. Consultation with those experienced in planning CME activities, experienced medical librarians, or physician specialists may be helpful. Sponsors may wish to offer assistance to physicians in developing "self-directed" individual CME programs. Sponsors who have the resources may desire to offer this assistance and are encouraged to do so.

Documentation of the systematic planning procedures is an integral part of an institutional/organizational CME program. Again, whether regularly scheduled intra-institutional activities, periodic conferences, courses, seminars, symposia or workshops, it is useful to have a written record of education committee or other planning group meetings; correspondence relating to faculty, facility, financial arrangements, as indicated; needs assessment; objective-setting; evaluation. Such documentation need not be complicated or time-consuming, but should be sufficient for the particular CME activity. Patently, this information and related data are valuable in monitoring the overall program, ensuring continuity, planning future CME activities, and as evidence of fulfillment of requirements for continued accreditation.

Prospective participants should be informed in advance about the specific content and format for a CME activity, for several reasons: (1) It enables them to select CME content that is relevant to their needs and/or interests. (2) In locales where many CME offerings are available, advance information allows the physician to choose activities that are best suited to personal needs and time allocation. (3) When some preparation is desirable or required, this can be accomplished, thereby enhancing the extent and value of participation. (4) They will know the extent and type of participation expected of them. (5) In some respects, this information represents "truth in advertising." Physicians who are uninformed or misinformed will be disgruntled, with the result that they may not participate in future activities. Advance publicity reflects proper planning and conveys a favorable impression to the physician regarding the potential worth of the CME activity.

Essential #5

The sponsor shall evaluate the effectiveness of its overall CME program and component activities and use this information in its CME planning. The sponsor shall (1) periodically review the extent to which the sponsor's CME mission is being achieved by its educational activities; (2) show that these evaluations assess (a) the extent to which educational objectives are being met, (b) the quality of the instructional process, (c) participants' perception of enhanced professional effectiveness; (3) use evaluation methods which are appropriate and consistent in scope with the educational activity; (4) demonstrate that evaluation data are used in planning future CME activities.

Explanation and Rationale

The systematic gathering of evaluation data and their analysis, including evaluation of individual CME activities, is necessary for the sponsor to assess the degree to which the overall program fulfills its CME mission. It will also guide the planning of future activities and permit rational decisions about improving the educational program.

Guidelines

This Essential requires that the sponsor periodically review the extent to which the sponsor's educational goals for the overall program of CME, as contained in the mission statement, are being achieved. The sponsor should do this annually. In order to evaluate the effectiveness of the overall CME program, the sponsor must evaluate individual CME activities which have been planned and conducted. These evaluations must assess the extent to which the educational objectives have been met, the quality of the educational process, and the participants' perceptions of enhanced professional effectiveness.

Evaluation methods must be appropriate and consistent in scope with the educational activity. A well-constructed evaluation form completed by participants at the conclusion of the educational activity provides useful data. Often the evaluation form also provides an opportunity for participant suggestions for future educational activities. Immediate in-depth evaluation by selected participants, as well as follow-up surveys, may be very helpful.

If the educational objective concerns the learning of a skill, direct observation of the participant's ability to perform that skill is an excellent method of evaluation.

Tests may be used when appropriate. It is difficult, however, to construct a valid and reliable test, and as a result, data from tests are often questionable. The

sensitivity of participants should be considered. Care should be taken that testing does not adversely affect the physician's desire to continue learning.

Although the ultimate purpose of CME is to improve medical care, measurements of physician performance, the quality of medical care and patient outcomes should not be the only criteria used in assessing the quality of the educational activity and of the degree of learning by participants. While keeping in mind that many factors beyond the control of CME planners influence medical care, sponsors are encouraged to attempt to assess the effect of their CME activities on medical care when this is feasible.

There are other evaluation techniques that are not based on educational objectives, but may be useful to the sponsor. Participant attention and enthusiasm, active involvement in discussion, the kinds of questions asked and comments made for instance, may be observed and recorded. The number of physicians who voluntarily return to a sponsor's CME activity may be another indication of quality.

The Essentials require that the sponsor demonstrate that evaluation data are used in planning future CME activities. Evaluation data collected but not used in future planning are worthless.

Essential #6

The sponsor shall provide evidence that management procedures and other necessary resources are available and effectively used to fulfill its CME mission. The sponsor shall (1) document an organizational structure for CME and its administration, designating an entity responsible for CME and delineating its authority; (2) identify responsible individuals who will maintain continuity of administration; (3) describe an internal review and control procedure, including budgetary practices, to ensure effective utilization of resources in fulfilling the CME mission; (4) provide a budget for the overall CME program and its major components; (5) utilize competent faculty; (6) provide appropriate facilities for CME programs; (7) have mechanisms to record and, when authorized by the participating physician, to verify participation.

Explanation and Rationale

Whether sponsors of CME are large or small, adequate management and control are necessary to assure quality educational activities. In addition, adequate resources must be available in order for CME activities to be relevant, effective, and efficient for physicians.

Guidelines

Administration—The sponsor must document an organizational structure for CME and its administration, designating an entity responsible for CME and delineating its authority. This entity may be an individual or a committee. If an individual is designated, there should be an advisory committee, with a majority of physicians, which takes an active role in planning. Minutes of committee meetings should be kept. CME committees should have representation of departments and/or services when appropriate and feasible.

The organizational structure must clearly indicate the authority of the entity responsible for CME, and should show how this entity relates to the governing body of the organization and effectively supervises CME planning of other units of the organization. CME policies and procedures should be documented.

There should not be undue dependence on one individual so that in the event of absence or illness, the CME program flounders. The sponsor must identify responsible individuals who will maintain continuity of administration. Members of committees should be appointed so their terms expire on varying dates. Administrative staff support should be sufficient to fulfill the CME mission. The terms of office of the persons responsible for CME should be of sufficient duration to assure continuity of administration.

Utilization of Resources—To ensure effective utilization of resources in fulfilling the CME mission the sponsor must have an internal review and control procedure. This procedure need not be elaborate. The procedure should permit the entity responsible for the overall program of CME to effectively monitor and supervise the planning and implementation of individual CME activities.

Included in the internal control procedure is preparation of a budget and the use of sound fiscal practices in administering the overall CME program. The budget should be adequate to meet the objectives of the mission statement. The sponsor is encouraged to have a separate CME budget, but should be able to, at least, clearly identify the CME budget when not separate from other items. Individual departments or services of an organization may have their own CME budgets, but the entity responsible for the overall CME program should have some responsibility for the allocation and utilization of resources.

Competent Faculty—The sponsor must utilize competent faculty. Faculty for a CME activity should be selected not only for their knowledge of the subject matter, but for their ability to communicate and to facilitate learning. The faculty's attitudes and manner of treating participants are also important considerations.

Appropriate Facilities—Sponsors must provide appropriate facilities and materials for CME activities. Appropriate means conducive to learning. As an example, access to an adequate, up-to-date library and audiovisual facilities is important.

Facilities may be selected for a CME activity at a site which offers opportunities for recreation and relaxation. These opportunities should complement rather than detract from the CME activity itself. Publicity should present the CME activity as the major incentive to physicians who may choose to participate.

Records of Attendance—The sponsor must have a mechanism to record physician participation at CME activities. Records should be kept for at least six years. Sponsors must have a mechanism to verify physician attendance when authorized by the participating physicians.

Essential #7

The sponsor shall accept responsibility that the Essentials are met by educational activities which it jointly sponsors with nonaccredited entities. The sponsor shall (1) provide evidence that it participates integrally in

the planning and implementation of each jointly sponsored CME activity; (2) Conduct an evaluation of each jointly sponsored CME activity.

Explanation and Rationale

An accredited sponsor may be asked by organizations which are not accredited to jointly sponsor CME activities, so they may have accredited sponsorship. When an accredited sponsor agrees to joint sponsorship it must provide assurance that the Essentials are met.

Guidelines

The Essentials require that a sponsor accept responsibility that accreditation standards are met by CME activities it jointly sponsors with nonaccredited institutions and organizations. An accredited institution or organization has the same responsibility for an activity it jointly sponsors as for an activity it sponsors. The sponsor should provide information on these jointly sponsored activities when resurveyed for accreditation and must demonstrate that it has participated integrally in the planning and implementation of these activities.

Jointly sponsored activities must be consistent with the sponsor's mission statement. The sponsor must conduct an evaluation of each jointly sponsored CME activity in the context of its mission statement.

The name of the accredited sponsor should appear on all promotional materials and on the printed program of the jointly sponsored activity. If more than one accredited sponsor jointly sponsors a CME activity, one should assume responsibility for the activity and this should be clearly indicated on the promotional materials and printed programs.

Some local chapters or affiliates of national organizations are neither independently accredited nor specifically included in the accreditation of the national organization. The accredited national organization should have care that it not be listed as the joint sponsor of CME activities of such local chapters or affiliates unless the requirements of this Essential are met.



PENINSULA HOSPITAL

Louisville, Tennessee

Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

Peninsula is fully accredited by the Joint Commission on Accreditation of Hospitals and is a member of the American Hospital Association, Tennessee Hospital Association, Federation of American Hospitals and the National Association of Private Psychiatric Hospitals.

The Professional Staff is composed of psychiatrists, licensed clinical psychologists, psychiatric social workers, psychiatric registered nurses, adjunctive therapists, and mental health workers. This experienced team, together with ancillary hospital workers, provides a dynamic treatment program designed for each individual to bring about change and emotional growth in the patient.

Peninsula provides a special treatment program for alcoholic and drug abuse patients. Another program is designed specifically for adolescents. The adolescent treatment program includes a fully staffed school program. An individual education plan is designed for each adolescent.

A variety of therapeutic programs are scheduled for each patient's day. These include intensive individual psychotherapy, group psychotherapy, community meetings with staff and many collateral activities.

Patients may be referred to Peninsula by their own physician, former patients, or may be self-referred. Voluntary patients as well as those who are directed to the hospital by a court are accepted for treatment. It is desirable for the hospital to receive information from physicians, therapists, family and friends who know the patient. Treatment is individualized based upon the needs of the patient.

Appointments for admission can be made by calling the hospital directly. The phone numbers are:

Knoxville	573-7913
Maryville	983-8216

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619 South 19th Street
Birmingham, Alabama 35233

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 69-year-old woman admitted for dyspnea had smoked a daily pack of cigarettes for 40 years, until the age of 62. For six years she had increasing shortness of breath, until currently, minimal activities such as dressing, bathing or walking short distances within her home cause marked shortness of breath. Her medications are digoxin 0.125 mg daily and furosemide 40 mg orally daily. She had been on theophylline preparation and home oxygen.

On admission her blood pressure was 122/80 mm Hg, she was afebrile, and the anterior-posterior thoracic diameter was increased. Her chest was hyperresonant to percussion, with diminished inspiratory excursion, and slight expiratory wheezing was audible, with a few inspiratory crackling rales at both lung bases. Heart sounds were distant, with a grade II systolic murmur audible along the left sternal border. There was bilateral pedal edema, and the nail beds were slightly dusky without clubbing. Arterial blood gases showed a pH of 7.4, with P_{CO_2} of 62 and P_{O_2} of 40. Her vital capacity measured 0.29 liter/min and increased to 0.46 after inhaled bronchodilators (10% of predicted increasing to 17% of predicted). Residual lung volume was 3.15 liter (164% of predicted). Admission potassium was 3.6 mEq/liter with serum CO_2 of 46 mEq/liter. Thyroid function studies were normal. The theophylline level on admission was 19.2 μg/ml (therapeutic range 10 to 20 μg/ml). An electrocardiogram was obtained (Fig. 1) with an accompanying rhythm strip (Fig. 2). The rhythm strip is a simultaneous recording of standard leads I, II and III.

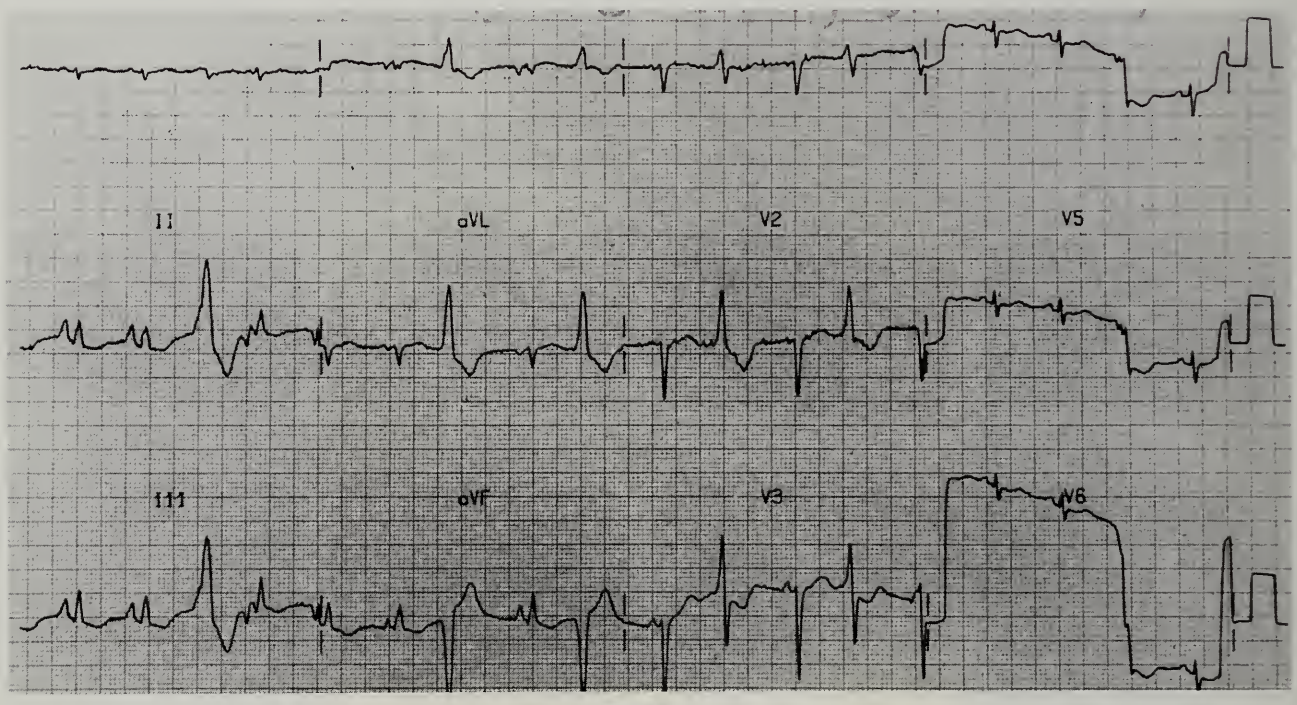


Figure 1

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

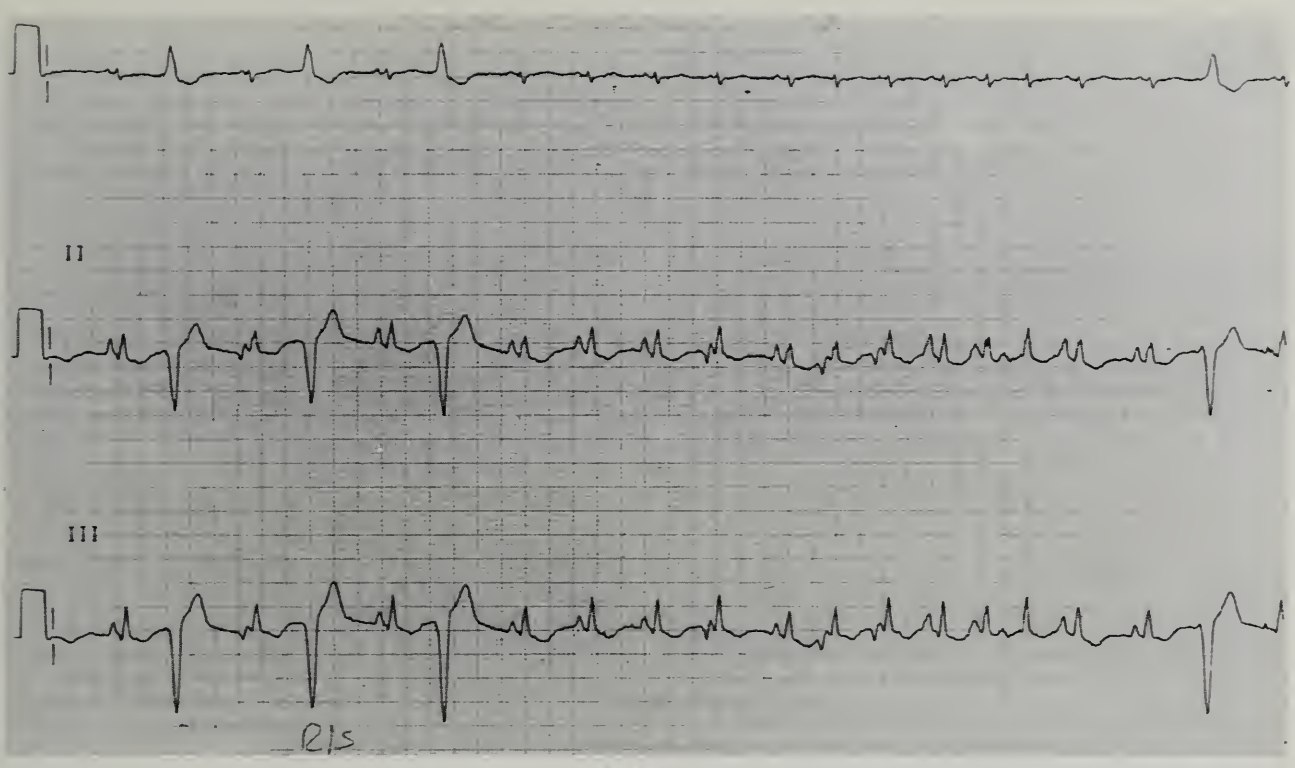


Figure 2

Discussion

The rhythm is irregularly irregular. Frequent abberant beats not preceded by a P wave are well identified in the left hand side of the rhythm strip (briefly in a bigeminal pattern). They follow the preceding normal beats by a fairly constant interval of 0.44 seconds. The lack of P wave and the widened bizarre QRS configuration implies a ventricular origin. The intermittently irregular rhythm and the variation in configuration of the P waves in the PR interval are best seen in standard lead III of the rhythm strip (Fig. 2). This irregularly irregular rhythm with variation in P wave morphology and PR interval are compatible with multifocal atrial tachycardia (chaotic atrial tachycardia[1]).

The P waves are strikingly tall and peaked in the inferior leads, with an amplitude of 3.4 mm in standard lead II. The QRS forces move rightward, inscribing a prominent S wave in standard lead I and in standard lead III an R wave that is taller than the R wave of standard lead II ("right axis deviation"). The anterior forces in V_1, V_2 and V_3 are nearly absent, resulting in small R waves in these leads, although the ventricular premature beats have prominent anterior forces. These poor anterior forces are commonly present with chronic obstructive lung disease and do not imply anterior myocardial infarction. Voltages in the lateral precordial leads (V_4 through V_6) rapidly attenuate. This voltage attenuation in the lateral leads is another common feature accompanying chronic obstructive pulmonary disease.

Multifocal atrial tachycardia, right axis deviation, prominent inferior P voltages of right atrial enlargement, poor anterior forces, and loss of voltages in the left precordial leads are all features that commonly accompany chronic obstructive pulmonary disease. Potassium chloride supplementation and respiratory therapy resulted in decreased frequency of ventricular ectopy.

IMPRESSION: EKG changes compatible with chronic obstructive lung disease.

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Hypertension-Related Mortality in Tennessee

JEFFREY S. HARRIS, M.D.; ANN DEA HOGAN; and RON SIMMONS

Introduction

Control of hypertension in populations is associated with a substantial decrease in cardiovascular, cerebrovascular, and renal morbidity and mortality. A dramatic decline in hypertension-related mortality has occurred in the United States since the mid 1960s[1] and in Tennessee since the early 1970s (unpublished statistics, Tennessee Department of Health and Environment). In uncontrolled populations, hypertension-related morbidity and mortality increase with increasing age, percent of non-white population, and lowered income and education levels. However, when a significant proportion of the 30%[2] (depending on age, race and sex) of the adult population expected to be hypertensive (defined on the basis of relative mortality risk as a systolic pressure over 140 or a diastolic pressure over 90 mm Hg[3]) is controlled by pharmacologic or nonpharmacologic means, proxy indicators that have been used to estimate the prevalence of hypertension may no longer apply. It then becomes important to use direct measures of the prevalence or health effects of hypertension to allocate resources to high need areas.

Methods

To trace the recent history of hypertension-related disease in the population of Tennessee, and to provide a basis for resource allocation for the Hypertension Control program, staff of the Health Promotion Section, Bureau of Health Services, and the Center for Health Statistics, Tennessee Department of Health and Environment, analyzed hypertension-related crude death rates per 100,000 population* during 1969-1971 and 1979-1981 by county. (A list of the *International Classification of Diseases* codes utilized in the analysis of these data is included in Table 1.) Three-year averages were necessary to obtain accurate comparisons because rates at the county

TABLE 1

INTERNATIONAL CLASSIFICATION OF DISEASES (ICD) CODES UTILIZED IN THE ANALYSIS OF HYPERTENSION-RELATED MORTALITY IN TENNESSEE

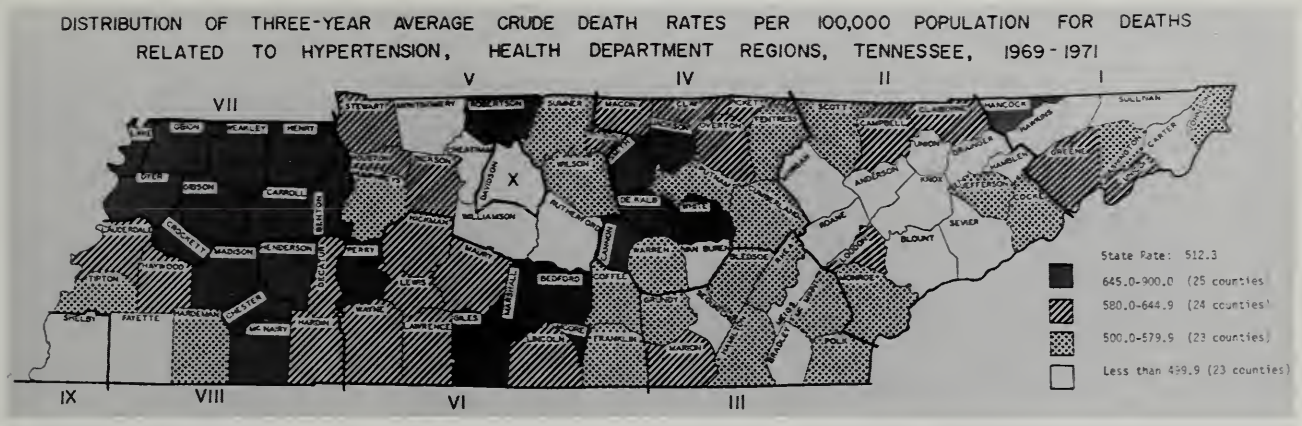
ICD Revision	Codes
8th Revision*	400-404
	410-413
	425-
	427-429
	430-438
	440-442
	443.9
	444.9
	445.0, .9
	581-
	582-
	583-
	792-
9th Revision**	402-404
	410-414
	425.9
	426-429
	430-438
	440-442
	443.9
	444.9
	447.9
	581.0-581.3, 581.9
	582-
	583.9
	585-586

*The 8th Revision was utilized in the analysis of 1969-1971 mortality.
**The 9th Revision was utilized in the analysis of 1979-1981 mortality.

From the Tennessee Department of Health and Environment, Nashville.

*Rates are per 100,000 population throughout this report

FIGURE 1



level fluctuate from year to year. Counties were grouped into quartile ranking by 1969-1971 death rates (Figs. 1 and 2), and by 1979-1981 death rates (Fig. 3).

Results

Between the two time periods examined, the state rate for hypertension-related mortality decreased 16.8% from 512.3 to 426.0 in 1979-1981. Twenty-five counties experienced rates in the highest quartile (645.0 to 900.0) in 1969-1971. By 1979-1981, there were only four counties in this quartile (DeKalb, Gibson, Carroll, and Benton), with rates of only 648.9 to 676.8. During that time period, DeKalb County's rank rose from 15th highest in 1969-1971 to the highest in the state in 1979-1981.

Every county except Sequatchie experienced a decrease in mortality from 1969-1971 to 1979-1981, rates in Cannon and Henderson Counties declining the most. In 1969-1971, Cannon County's rate of 897.6 was the highest in the state; by 1979-1981 its rate of 439.8 ranked 57th. Henderson County's rate dropped from 6th (785.3) to 65th (422.3). Eleven counties in 1979-1981 experienced rates lower than the lowest rate of 352.4 in 1969-1971. Montgomery County's rate was the lowest for both time periods; by 1979-1981 it had fallen to 268.8, a 23.7% decrease.

While every Health Department Region (HDR) had a decline in overall crude mortality, there are readily apparent differences between regions, both in improvements between the time periods examined and between regions within each time period (Figs. 1 through 3). In 1969-1971, the nine counties of the Northwest Region (HDR VII) were all in the highest quartile. In 1979-1981, using the 1969-1971 quartiles, there were still three counties in HDR VII in the highest quartile. Using the 1979-1981 quartiles, all counties but one (Dyer) in the HDR VII ranked in the highest quartile.

The other regions with highest mortality in 1969-1971 were South Central (HDR VI-five

FIGURE 2

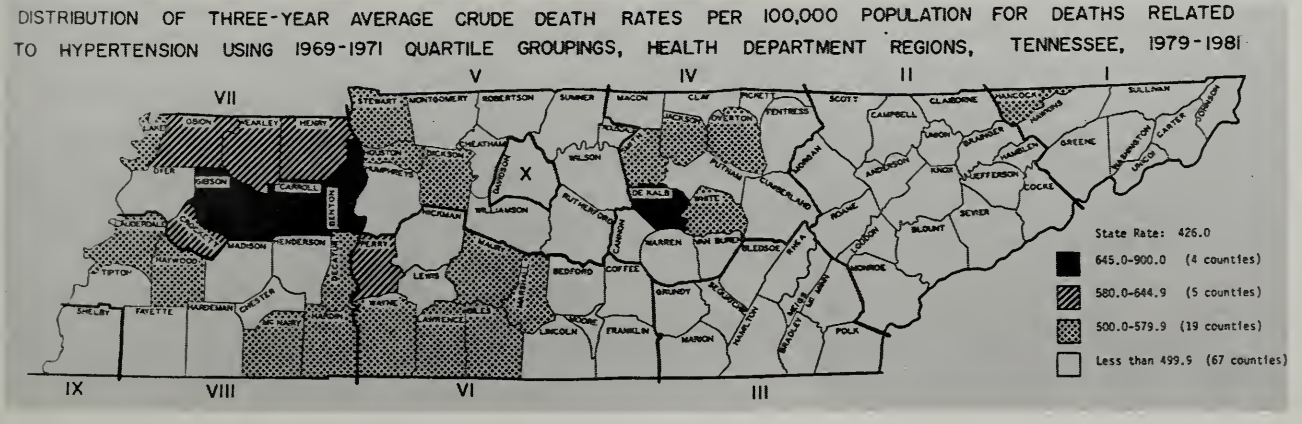
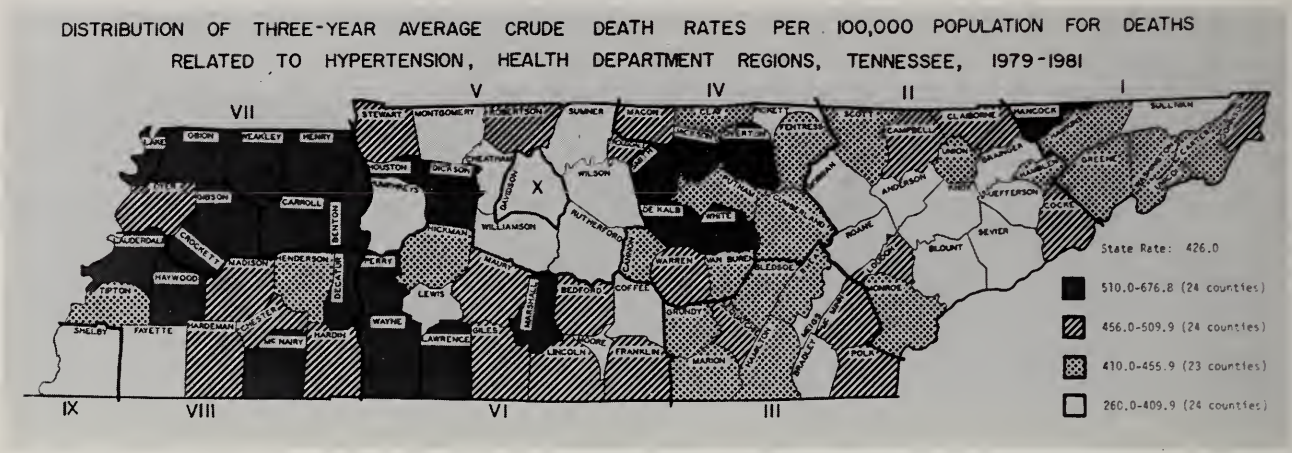


FIGURE 3



counties in the top quartile and six counties in the second quartile), Upper Cumberland (HDR IV-four counties in the top quartile and four counties in the second quartile), and Southwest (HDR VIII-four counties in the top quartile and four counties in the second quartile). By 1979-1981, using the 1969-1971 quartiles, substantial decreases had occurred in all regions, with residual high quartile counties in Northwest, South Central, and Upper Cumberland HDRs (Fig. 2).

Using 1979-1981 quartiles (Fig. 3), high mortality areas were still concentrated in Northwest (HDR VII-610.1), Southwest (HDR VIII-494.1), South Central (HDR VI-481.4), and Upper Cumberland (HDR IV-479.5). Mid-Cumberland (HDR V-343.2), East Tennessee (HDR II-395.9), Shelby County (HDR IX-400.7), and Davidson County (HDR X-407.3) ranked among the lowest areas in mortality in 1979-1981. First Tennessee (HDR I-417.6) and Southeast (HDR III-434.2) were intermediate. Sixty counties ranked above the state rate of 426.0.

Discussion

It is not clear what factors are associated with the mortality decrease outlined here. On a national level, the percentage of adult hypertensives who are estimated to be aware of their condition has increased from 55% in 1960 to 75% in 1975; 70% of the 78% being treated are under control for a net of 38% under control.[4] Since 1975 the proportion aware has risen to 88%.[4] While data for 1960 for Tennessee are not available, in 1982, 86.4% of adults were estimated to have had their blood pressure checked within the past year. Of that number, 25.2% were aware of being hypertensive; 73.8% of aware hypertensives were under control (unpublished statistics, Tennessee Department of Health and Environment).

It is difficult to attribute precise proportions of the decrease in hypertension-related mortality to improved pharmacologic control, improved life-style, and secular trends, but it is clear from data from the Framingham Study that as soon as a hypertensive's blood pressure is returned to normal levels, that person's risk of hypertension-related morbidity and mortality is that of a normotensive with the same blood pressure.[3] Physicians and others in Tennessee are to be commended for their efforts in reducing hypertension-related deaths. Since most hypertensives are now aware of their condition, but only a fraction of them are controlled, it is incumbent on all health professionals to increase our efforts to track, prevent, and treat, both pharmacologically and nonpharmacologically, this major preventable cause of disability and death.

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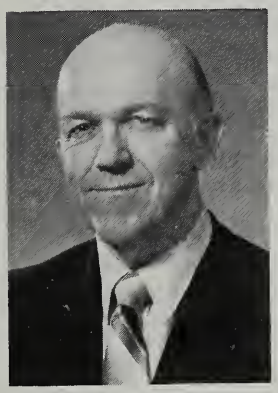
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president's page



NAT E. HYDER, JR.

Physicians Needed in Military Reserve Programs

The Department of Defense has a shortage of 2,470 physicians to meet the peacetime staffing level of the National Guard and Reserve Components. The shortage is even greater during a major national emergency, especially for the surgical specialists.

The Acting Assistant Secretary of Defense for Health Affairs and the Surgeons General of the Army, Navy, and Air Force have initiated two innovative programs to resolve the serious shortage of physicians. I would like to briefly mention both programs and provide you with a point of contact in Washington if you are interested.

The Physician Reservists in Medical Universities and Schools (PRIMUS) Program provides a "military medicine interface" at medical schools for promising young physicians. PRIMUS physicians receive Reserve pay and other benefits by performing part of their Reserve duty at medical schools in activities approved by the Military Department Secretaries. An Air Force Reservist, for example, could present lectures on some aspect of aerospace medicine.

Defense officials recognize and appreciate the demanding life-styles of surgical specialists who need a great deal of flexibility to actively participate in scheduled Reserve Medical Training Programs. Therefore, the Reserve Flexibility (REFLEX) Program was established. REFLEX provides pay and retirement points to surgeons and other physicians as well as for equivalent medical training as determined by the Military Department Secretaries. Participation in continuing health education courses is an example of a REFLEX medical training opportunity.

I encourage you to contact the Surgeon General of the Service of your choice to find out the details of PRIMUS, REFLEX, and other programs designed to enhance the medical readiness of our Reserve Forces. If one or more of the programs meet your criteria leading to a decision to join up, I hope you will apply for a commission and do what you can to ensure our national security through medical service in the Reserve Forces.

To find out how you can participate in a program critical to our national defense, write:

Army

Lt. Gen. Bernhard T. Mittemeyer
Surgeon General, US Army
Room 3E468, The Pentagon
Washington, DC 20301

Navy

Vice Adm. Lewis H. Seaton
Surgeon General, US Navy
Room 4E432, The Pentagon
Washington, DC 20350

Air Force

Lt. Gen. Max B. Brallier
Surgeon General, US Air Force
Bolling, AFB, DC 20332



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Address organizational matters to L. Hadley Williams, Executive Director, 112 Louise Avenue, Nashville, TN 37203

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OCTOBER, 1983

editorials

JAMA Centennial

At the time this *Journal* first graced the desks of the physicians of Tennessee, the *Journal of the American Medical Association* was already a respectable quarter of a century old. That being so, as we celebrate our 75th Anniversary, the *JAMA* becomes a centennarian, and as such is receiving all the accolades to which that station entitles it.

Though the *JAMA* has had its ups and downs, its downs were never very far down, and were the result of fiscal vagaries of the Association it represents. Never in its history, though, has its prestige diminished, as it has been led through good times and bad by a series of remarkable men who have served as its editors. To a lot of us coming into medicine in World War II days, the late and durable Morris Fishbein *was* the AMA. He molded the *Journal,* and to a great extent the Association, in his image.

The *Journal of the American Medical Association* could have been allowed to grow moldy in its old age, but in fact it has never looked better as it enters its second century under the expert guidance of George Lundberg, a fellow pathologist, who assumed the editorship when Bill Barclay retired a couple of years back. He directs a publication that now has a weekly circulation of 322,000 copies in English to 132 countries, in addition to 131,000 copies distributed with varying frequencies of publication in seven countries in six languages—French, German, Italian, Flemish, Japanese, and Chinese.

I have never been at my best in recollecting precise anniversary dates, to which my family can attest, and in fact this *Journal,* though born in June, recorded its celebration in the July issue. I have never completely forgotten an anniversary though, and for all its tardiness, this salute to *JAMA* on the occasion of its centennial celebration is no less cordial. Even many who mouth in knee-jerk fashion the pompous aphorism, "The AMA—who needs it?" nevertheless bow to its journal's utility and worth, and doubtless wish it well. We will do better than that.

The *Journal* joins the others of *JAMA's* well-wishers with an ancient obeisance:

O JAMA, live forever!

J.B.T.

On Essentials, Guidelines, and Protocols

A little boy went to his father one day with the question, "Daddy, where did I come from?" His father, thinking the big day had finally arrived, was just getting warmed up in a discussion of the birds, bees, and storks, when he was interrupted with, "Oh, I know all that. What I mean is, what city was I born in?"

If you should care to look back through the issues of the *Journal* in the eleven going on twelve years I have been editor (which I doubt you would), you will find chronicled in it the vicissitudes of continuing medical education (CME) in

this state and in the country at large, since the current drive along those lines began just a couple of years earlier. I will spare you a birds and bees recitation, then, except to say that the birth of the present Essentials for the Accreditation of Sponsors of CME[1] was preceded by a long period of coitus interruptus and the gestation period marked by much extramarital chicanery. Before the Accreditation Council on Continuing Medical Education (ACCME), the current accrediting body (itself the product of a long and difficult gestation and labor), could finally publish the Essentials as the rules of the game, guidelines for their application had to be written, and then approved by each of ACCME's seven parent organizations. This has finally been accomplished, and as of January 1, 1984 the accreditation of national organizations and medical schools for purposes of CME will be governed by the ACCME Essentials and Guidelines, published elsewhere in this issue of the *Journal*.

Note that these Essentials do not necessarily govern state accreditation programs, as the AMA, in its role as a parent of the ACCME, has assiduously guarded the prerogatives of each state medical society to perform this function within its own boundaries, using whatever criteria it wishes. Nevertheless, approval of the Guidelines at the Interim Meeting of the House of Delegates last December carried with it the blessing of the state societies, whose CME chairmen had a hand in drafting them.

Although the state organizations may run their own accreditation programs any way they wish, if their CME is to be acceptable to other states, especially those having statutory requirements, there must be uniformity of requirements and their application. The ACCME is therefore attempting to develop a program for recognition of each state's acceptability as an accrediting agency for purposes of national reciprocity. A subcommittee of the ACCME, which included several state CME chairmen, drafted a protocol for recognition of state medical societies to accredit interstate sponsors of CME. This protocol, which has been accepted by the states, has also been ratified by all of the ACCME constituent organizations save one—the Association of American Medical Colleges (AAMC).

The spirit of compromise has been apparent throughout all of the sometimes stormy course of the formation of the ACCME and development of the Essentials, Guidelines, and Protocol. The AMA and the state societies have given considerable ground, finally approving a mechanism that would leave in the hands of the ACCME Executive Committee appointments to the Committee for Review and Recognition of State Medical Societies (CRR) to be made from a list of nominees submitted by the AMA. The decisions of the CRR as to recognition of the state society programs would be final, and would simply be reported to the ACCME. Dr. John A.D. Cooper, perennial president of the AAMC, who wishes to maintain absolute personal control over all medical education in the United States, is holding out for veto power for the ACCME over the CRR's actions—which means for himself.

The AMA CME Advisory Committee (CMEAC), on which I serve, considers that the AMA has given as much ground as it can and still represent the federation, and it has so advised the Council on Medical Education. Rightly or wrongly, when the AMA was alone in the old LCCME, it picked up its marbles and went home. Ever since the former members of the LCCME regrouped to form the ACCME, the stance of the AMA has been one of conciliation, and it has made more than its share of compromises. With the single exception, the spirit of the members has been one of cooperation. No organization should be allowed to disrupt the process, and there is no indispensable member. That there are state accreditation programs at least as good as the ACCME's, and that those individuals in the state programs are at least as interested as the AAMC in maintaining high quality CME, could hardly have escaped Dr. Cooper had he wished to notice.

At the moment, then, as of January 1, TMA's accreditation program will be operating under ACCME's Essentials and Guidelines. I hope I will soon be able to report to you that we are also operating under ACCME's Protocol for Recognition of State Medical Societies to Accredit Intrastate Sponsors of CME.

J. B. T.

1. Essentials for the Accreditation of Sponsors of CME. AMA CME Report D, I-81. *J Tenn Med Assoc* 75:257-259, 1982.

From Samhain to Insanity

I much prefer writing happy pieces to playing Cassandra, and it seems that is tantamount these days to preferring fairy tales to reality. Well, who doesn't? Fairy tales are happy pieces, are they not? Not—or mostly not. The allusion is to the

ending, but not the story line. *Grimm's Fairy Tales* is a grim book indeed. Though Little Red Riding Hood was rescued, her grandmother was food for the wolf. If you want a recipe for mayhem, just turn to the Brothers Grimm. That is not what I mean.

In casting about for editorial material, all I could find wherever I looked was bad news, medical or otherwise—local, national, and international. A Walter Cronkite pomposity is that no one cares about the cats that stay home. Well, it sometimes seems they don't hardly make that kind no more, so Marse Walter and his ilk should be having a ball, as indeed they are.

The ancient Celtic year ended on October 31 with the feast of Samhain, when the souls of departed loved ones returned to their firesides to secure warmth and love for seeing them through the cold winter. The feast deteriorated under Christianity to All Hallows Eve, contracted to Halloween, which preceded All Saints Day. Since the Christian church taught that the only souls that roam the earth are evil, Halloween became synonymous with the Witches' Sabbath, when you had to watch out for goblins, ghouls, and ghosties.

Perhaps the Celtic world was saner than ours, where souls could find succor to see them through the winter. It would seem the transmutation is complete, though, and that about all our present world would have to offer them are, sure enough, goblins, ghouls, and ghosties.

J. B. T.

The Summer of '83

Today the public schools in Metro Nashville are closed. They are taking a "snow day." Now, there would seem to be nothing odd about this, as it happens at one time or another nearly every year. To keep from running over into the hot early summer weather and at the same time remain open for the required number of days, it has become customary for the schools to open in late August so as to allow for a cushion of a couple of weeks for schools to close when attendance at school would not be safe. This is one of those days. Conventional wisdom apparently has it that early June is hotter than late August.

This morning on the *Ralph Emery Show*, a slightly dotty live early morning offering on Nashville TV, two performers gave a lusty if not very precise rendition of "Frosty the Snowman," which also would not be strange, except that the date is August 23, and the 5:30 AM temperature on Channel 4's radar screen is 78°F, which is, in fact, two degrees lower than it was yesterday at the same hour. The schools are closed because the afternoon temperature in many classrooms yesterday, the first full day of school, ranged around 98°F to 100°F. Record high temperatures have seared the entire nation for weeks, and except for a few unusually wet spots, vegetation is drying up and crops are ruined. Food is predicted to be scarce.

The unusual heat is not confined to the United States, or even this continent, as the most pressing question in Britain a few weeks back was whether one could be received by the queen without wearing hose. In recognition of the situation, Her Majesty decreed it to be acceptable. Dress has become increasingly casual, and tempers likewise, the Northern Hemisphere over. Air conditioners are working overtime, when they work at all, and Houston, Texas, one of the world's prime steam baths, broils in the wake of monster hurricane Alicia, as power outages and broken windows dictate that only Mother Nature condition the air.

The Southern Hemisphere preceded us in our misery, as South African grain, counted on to supply the entire continent, suffered a severe shortfall during last summer's (our winter's) drought, and Australia, always dry, became even drier. While they were drying up, we were washing away, and as a result entered summer with a 13 inch surplus of rain. While that doubtless helped the water table, it does nothing for us now (nor did it then—only *to* us), and in fact that surplus had dwindled to 0.12 inches by yesterday evening, and will doubtless disappear in a day or so.

Last week the *Wall Street Journal* editorialized, tongue in cheek (I think), that all this is obviously due to Russian tampering. I suppose it is human nature to seek a scapegoat, and Russia will do as well as any (and, in fact, who knows? They may indeed be responsible). The *WSJ* opined further that someone should design a T-shirt with the caption, *I Survived the Summer of '83.*

Considering the sad and untimely death due to the heat of, among others, a young, healthy running back on Auburn's football team following practice a few days ago, one might wish to postpone, at least until September 21, investing in such a shirt.

J.B.T.

in memoriam

Delmas K. Kitchen, age 76. Died July 26, 1983. Graduate of University of Arkansas College of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Alphonse H. Meyer, Jr., age 79. Died July 24, 1983. Graduate of Harvard Medical School. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY
Robert Alan Beasley, M.D., Cleveland
John Stephen McNulty, M.D., Cleveland

BUFFALO RIVER VALLEY MEDICAL SOCIETY
Jeffrey Carl Fosnes, M.D., Centerville

CARTER COUNTY MEDICAL SOCIETY
John Richard Mullins, M.D., Elizabethton

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY
Joel Lewis Bremer, M.D., Chattanooga
Paul A. Broadstone, M.D., Chattanooga
Lawrence Tien-Tso Ch'ien, M.D., Chattanooga
David Glick, M.D., Chattanooga
Cassell Amanda Jordan, M.D., Chattanooga
Frank E. Sisko, M.D., Chattanooga
Timothy A. Strait, M.D., Chattanooga

KNOXVILLE ACADEMY OF MEDICINE
William L. Burkhart, M.D., Knoxville
Joanne Filchock, M.D., Knoxville
Ronald J. Gordon, M.D., Knoxville
R. Bruce Koefoot, Jr., M.D., Knoxville

McMINN COUNTY MEDICAL SOCIETY
H. Joseph Holiday, M.D., Athens
Stephen R. Rodgers, M.D., Athens

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY
Justin C. Adler, M.D., Memphis
Mohamad J. Akbik, M.D., Memphis
William L. Algea, III, M.D., Millington
Karen Louella Curtis, M.D., Memphis
Leslie P. Edgcomb, M.D., Memphis
Frank M. Eggers, II, M.D., Memphis
Christine Marie Heckemeyer, M.D., Memphis
Richard G. Hendrick, III, M.D., Memphis
Karen Elizabeth Hopper, M.D., Memphis
John R. Hughey, M.D., Memphis
Antoine Jean-Pierre, M.D., Memphis
Hari S. Kapur, M.D., Memphis
James Elliott Machin, M.D., Memphis
James H. Montgomery, M.D., Memphis
David P. Nussbaumer, III, M.D., Memphis
Rodney Glenn Olinger, M.D., Memphis
Richard E. Parrish, M.D., Memphis
Charles Richard Patterson, M.D., Memphis
William E. Routt, Jr., M.D., Memphis
David Morris Sharfman, M.D., Memphis
Tanja Lu Todd, M.D., Memphis

(Student Members)

James R. Mitchum, Memphis
Larry Patterson, Memphis

MONTGOMERY COUNTY MEDICAL SOCIETY
W. Cooper Beazley, M.D., Clarksville
Virgil T. Deal, M.D., Clarksville
Janet L. Dittus, M.D., Clarksville
Robert S. Ellison, M.D., Clarksville
Carol A. Vandiveer, M.D., Clarksville

NASHVILLE ACADEMY OF MEDICINE
Rhonda Kay Brennan, M.D., Nashville
Deborah M. Bryant, M.D., Nashville
Joseph W. Diggs, M.D., Nashville
Stephen E. Grinde, M.D., Madison
Aina Juliana Gulya, M.D., Nashville
Michael C. Gunn, M.D., Nashville
Alan Stuart Henson, M.D., Madison
Paul Alfred Johnson, M.D., Nashville
Jeffrey Arthur Lukens, M.D., Nashville
John Wills Oglesby, M.D., Nashville
Myles Luther Pensak, M.D., Nashville
John (Jack) Duncan Price, M.D., Nashville
Dan M. Spengler, M.D., Nashville
Richard Baird Stewart, M.D., Nashville
J. Anthony Wurtsbaugh, M.D., Mt. Juliet
Larry Creston Young, M.D., Nashville

SMITH COUNTY MEDICAL SOCIETY
Steven E. Hawk, M.D., Carthage

WHITE COUNTY MEDICAL SOCIETY
Gene G. Stunkle, M.D., Sparta
George T. Wall, M.D., Sparta

personal news

John Howard, M.D., has been elected chief of staff of Volunteer General Hospital in Martin. Other officers elected include *Ken Carr, M.D.*, vice chief of staff; and *K. R. Somashekar, M.D.*, secretary.

Robert J. Linn, M.D., Nashville, has been elected to Fellowship in the American College of Radiology.

TMA Members Receive AMA Physician's Recognition Award

Twenty-eight TMA members qualified for the AMA Physician's Recognition Award during July 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

David D. Alfery, M.D., Nashville
Arkom Buranapiyawong, M.D., Memphis
Kenneth W. Carr., M.D., Martin
Dinesh N. Chauhan, M.D., Memphis
Mary E. Clinton, M.D., Nashville
Richard C. Dickson, M.D., Chattanooga
Larry I. Giltman, M.D., Memphis
Johnny E. Gore, M.D., Antioch
William Harrison, Jr., M.D., Kingsport
Richard B. Heintz, M.D., Johnson City
Penn Q. Joe, M.D., Memphis
Fred T. Kimbrell, Jr., M.D., Donelson
Ronald H. Kirkland, M.D., Memphis
Harry M. Lawrence, Jr., M.D., Chattanooga
James C. Lett, M.D., Erin
James A. Loveless, Jr., M.D., Lebanon
Everette G. Lynch, M.D., Morristown
Conn M. McConnell, M.D., Madison
Mark S. Mumford, M.D., Knoxville
Henry J. Presutti, M.D., Morristown
Jon H. Robertson, M.D., Memphis
Buntwal N. Somayaji, M.D., Nashville
Frank W. Stevens, M.D., Nashville
John B. Thomison, M.D., Nashville
Helen K. Van Fossen, M.D., Memphis
John V. Webb, M.D., Maryville
Larry H. Westerfield, M.D., Kingsport
Sidney A. Wike, M.D., Bristol

national news

From the AMA's Office in Washington, D.C.

Congress Faces Tough Budget Decisions After Summer Recess

For most of 1983, predictions of the imminent demise of the eight-year-old congressional budget process have circulated in Washington.

And after a long summer recess, Congress once again faced the thorny issues raised by the budget. The fate of a spate of proposed Medicare changes—including limits on Medicare payments to physicians—may hang in the balance this fall.

Enacted in 1974, the never-easy congressional budget process has grown progressively more difficult as the federal budget deficit climbed to $200 billion and it became clear that only large tax increases, sizable reductions in popular entitlement programs, or both could make a dent in the deficit.

Never at ease with either of those tasks and facing an election year in which both the presidency and the majority in the Senate are at stake, many members in both parties would rather not take on the budget.

That has led to derisive comments from some such as Sen. Robert Dole (R-KS) who called the budget process this year a "floating craps game." It has also resulted in the postponement of the key part of the budget game—"reconciliation" of the congressional budget with program changes to achieve the spending and revenue balance.

An $860-billion congressional budget resolution approved earlier this year directed congressional committees to find savings of $12.3 billion and increase revenues by $73 billion for fiscal years 1984-1986. It set a July 22 deadline for completion of this part of the reconciliation process.

The deadline was pushed back to Sept. 23, however, when both the House Ways and Means and Senate Finance Committees indicated they would not meet the target date. Now, Congress, if it is to have the budget in place by the beginning of the new fiscal year Oct. 1, will have just three weeks to resolve the fundamental ideological differences that underlie the budget debate.

Perhaps the biggest stickler in the debate is the need to raise new taxes—a task for which both Finance and Ways and Means appear to have little stomach in a pre-election year.

Health programs, and Medicare in particular, also will come in for a share in the controversy. The budget resolution calls for $400 million in Medicare cuts next year and budget conferees specified that the cuts are not to come at the expense of beneficiaries.

On the other hand, the Reagan budget had called for about $2 billion in Medicare reductions, some $900 million of which would have come from freezing Medicare's customary and prevailing charge levels at the 1982/83 level. Most of the remainder was to come from increased costs to beneficiaries.

Debate during reconciliation may well center on the Medicare physician fee freeze backed by President Reagan. The Senate Finance Committee voted to finance health insurance for the unemployed through a limited physician fee freeze affecting only prevailing fees. Though that proposal is not likely to survive as a means of financing benefits for the unemployed, it may well be offered again as a Medicare reduction.

There are many who will argue that freezing payments to physicians defies the conferees' directive that Medicare reductions not affect beneficiaries, but few alternatives are available and Sen. Dole, who chairs the Finance Committee, is expected to contend that physician fee freezes may be one of the least onerous ways of meeting the budget targets. It is possible that

a physician fee limit would be tied to provisions—such as changes in the Medicare assignment rules—intended to soften the impact on beneficiaries.

Health-related budget recommendations will come from the House Ways and Means and Commerce Committees in addition to Senate Finance. The House and Senate will have to approve their respective committees' recommendations. A House and Senate conference then must resolve any differences in the budget recommendations of the two bodies. Both chambers then have to give final approval to the conference committee's budget. Whether that can all be accomplished prior to Oct. 1 is in doubt, although it is possible that Congress will, as it has once before, postpone final budget action until after the beginning of the fiscal year for which the budget is effective.

Once it has dealt with—or given up on—the budget reconciliation, Congress can move on to other issues. Chief among these will be the Health and Human Service Department's appropriations for fiscal 1984, reauthorization of the National Institutes of Health and, perhaps, health insurance for the unemployed and reauthorization of the federal health planning program.

PRO Draft Regulations By OMB

Long-awaited regulations for the Professional Review Organization (PRO) program finally have been cleared by the Office of Management and Budget.

But the proposed regulations are so vague that they provide little guidance to the many groups lining up for one of the 52 new two-year contracts to scrutinize the care of hospitalized Medicare and Medicaid patients. Interested parties were awaiting completion of bidding principles and specifications that were available late in August. The bidding principles may be more easily modified in the future than the regulations.

The regulations will help implement legislation adopted in September of 1982. That law, sponsored by Sen. David Durenberger (R-MN), created PROs to replace Professional Standards Review Organizations (PSROs) established in 1972 to review Medicare and Medicaid patients' care.

The regulations, which establish new geographic areas of operation for PROs and outline eligibility criteria for organizations proposing to become PROs, leave in doubt the specifics of how eligible organizations will be judged against each other and even exactly how many PROs there will be.

In most instances, PROs would operate on a statewide basis, with the 194 geographic areas now in effect for PSROs being cut to about 52—one for each state, plus one for the District of Columbia and one for the Virgin Islands and Puerto Rico. The Health Care Financing Administration (HCFA) also is considering merging PROs in Alaska, Delaware, Nevada, Vermont, and Wyoming with PROs in adjacent states.

The new regulations would permit organizations composed of only 5% of the licensed practicing physicians in the area to qualify as PROs. If at least 10% of the area physicians participated in a proposed PRO, it would automatically be deemed "representative" of physicians in the area. If more than 5% but less than 10% participated, the group would have to submit statements of support from other physicians to demonstrate that it is "representative."

Organizations that are not physician-sponsored but had "available"—through "arrangement" or otherwise—sufficient numbers of licensed physicians in the area to assure "adequate" review of services are considered "physician access organizations" and can qualify as PROs. The regulations do not specify how the organizations are to assure "availability." To prove they can conduct "adequate" review, physician access organizations must have at least "one physician in every generally recognized specialty."

Payer organizations such as insurers could not bid on PRO contracts in areas where they pay the bills until after Oct. 1, 1984. Apparently, however, they could bid on PRO contracts prior to that time, if they had 5% to 10% physician involvement and bid for contracts in areas where they did not pay the bills.

States also could compete for PRO contracts because operation of a state Medicaid program would not disqualify them as a payer, the regulations say. If the state had some other health insurance underwriting arrangements, it would be prohibited from bidding before Oct. 1, next year.

Even after that date, physician-sponsored and physician access organizations that submit a "minimally acceptable" plan would still have preference over a payer organization. Hospitals or other facilities within the PRO area could not become PROs.

In evaluating the bid proposals, HCFA first will identify eligible organizations, determine which have "minimally acceptable" plans, and "assign priority to all physician-sponsored organizations" by awarding them a "set number of bonus points" to be enumerated in the principles and specifications to be published later.

Eligible bids then will be evaluated and compared on the basis of whether the organization's proposed review system is "adequate," its review resources "sufficient," and its "quantifiable objectives acceptable." Prior experience will be considered. No criteria for determining "adequacy" of the review system or "sufficiency" of the review resources are included. Nor is there any guidance on what constitutes an acceptable objective. These, too, are expected to follow as bidding principles or "scope of work" criteria which will identify how much weight will be placed on various factors such as cost of review, past experience and preference for physician sponsorship. They will outline the expected duties of the PROs, such as validating diagnoses to assure that hospitals are not circumventing Medicare's new diagnostic-related groups payment arrangement. They also will lay out the objectives PROs are expected to meet.

The "scope of work" provisions would then be followed by an announcement of the availability of the specific requests for (bid) proposals in the PRO areas.

HCFA staff says the RFPs may be issued in November or December. The first contracts are expected to be awarded next spring.

Kennedy Would Cover Physicians Under DRGs

Sen. Edward Kennedy (D-MA) plans to introduce legislation sometime in September that would extend Medicare's new prospective pricing system to physician services in the hospital.

The proposal is part of a "Medicare rescue plan" Kennedy outlined to the National Council of Senior Citizens in August. Kennedy said that between 1985 and 2005, Medicare is expected to rack up a deficit of $1,018 billion and he estimated his plan would produce savings of slightly more than that—$1,047 billion—over the same period.

Basically the plan would extend Medicare's new diagnostic-related group (DRG) prospective pricing scheme for hospitals to other payers as well. It would expand the DRG system by including inhospital physician services. It also would attempt to encourage hospitals to shift treatment from inpatient to outpatient facilities by ratcheting down reimbursement for increased admissions. DRG rates would rise each year by 1% more than the market basket for goods and services purchased by hospitals.

HHS Heeding Grace Commission

Department of Health and Human Services Secretary Margaret Heckler has ordered a hiring freeze in her office and is said to be contemplating cutting 20% of the more than 5,700 jobs in the Department as well.

In announcing her decision, Heckler called it the "first step in carrying out the general objectives of the Private Sector Survey on Cost Controls." Also known as the Grace Commission, the Private Sector Survey called for a reduction of 1,674 full-time positions in the Secretary's office.

The Commission, whose wide-ranging suggestions for reducing federal spending included testing the use of physician fee schedules in Medicare, had suggested that the Secretary's staff be reduced by decentralizing the office and leaving research and policy activities of the office to the Health Care Financing Administration, Social Security and Human Development Services.

Dioxin Studies Reported to Congress

Seven herbicide workers have died from soft-tissue sarcoma, increasing the body of evidence linking this rare form of cancer to dioxin exposure, federal health officials told members of a House Science and Technology subcommittee in August.

Herbicide manufacturing companies Dow Chemical and Monsanto reported 3 of 105 deaths, or 2.9%, were due to soft-tissue sarcoma. Based on the incidence of this cancer in the general population, only 0.07% deaths would have been expected. A recent fourth death among workers pushes the incidence still higher. Company officials confirm that all of the dead workers had been exposed to dioxin.

An additional three deaths among herbicide workers due to this rare form of cancer were detected by outside physicians. But because it has not confirmed that these workers were exposed to the chemical, they cannot be categorized with the other deaths.

Two of the dead Dow workers were accidentally overexposed in 1963-1964 when a manufacturing malfunction released large amounts of the chemical. Two of the dead Monsanto workers may have been involved in the cleanup of a 1949 explosion that is thought to have spread chemicals.

"Each of the company studies concluded nothing. But by putting the studies together, you see a different picture," said Marilyn Fingerhut, Ph.D., of the NIOSH Division of Surveillance.

"To be absolutely certain that there is a cause-and-effect relationship" between dioxin exposure and cancer, "we need to investigate more cases. This work only supports an association," said Phillip J. Landrigan, M.D., director of the NIOSH group, "But to me, the evidence is very strongly suggestive that occupational exposure to dioxin can cause cancer."

Concluded Edward N. Brandt, Jr., M.D., Assistant Secretary for Health at the Department of Health and Human Services: "There is an increasing body of evidence that there may be an association in workers between exposure to products containing dioxin and soft-tissue sarcomas; however, results thus far do not establish a cause-and-effect relationship. Further studies are necessary before we can determine whether or not this association is causal."

New Medicare/Medicaid "Fraud" Regulations Take Effect Sept. 26

New regulations—set to go into effect Sept. 26, 1983—will penalize physicians, hospitals and other health care providers who file false Medicare and Medicaid claims.

The regulations permit the Department of Health and Human Services to suspend providers who file false or improper claims from participation in Medicare and Medicaid. In addition, HHS may impose assessment of up to twice the amount of the improper claim and add a penalty of up to $2,000 for each medical item or service improperly claimed. The length of the suspension and amount of the penalties will vary according to the case.

HHS Inspector General Richard Kusserow said the new regulations, which implement the Civil Monetary

Penalties Law of 1981, were necessary because the Justice Department traditionally has declined to prosecute many Medicare and Medicaid fraud cases due to a backlog of cases and the relatively small amounts of money involved in individual cases. For instance, Kusserow said, in the first six months of this year, Justice turned down 60 of 198 cases HHS asked it to prosecute. He estimates that the new law could save the government up to $1 billion a year.

Published in the August 26 *Federal Register*, the regulations give HHS the right to impose sanctions for up to five years from the date the fraudulent claim was filed. The sanctions also could be applied to claims filed before the law was implemented on Aug. 13, 1981.

A provider may appeal the suspension or sanctions by filing his intent to do so within 30 days from the date he is notified of the intended action. Appeals will be heard by a government administrative law judge. The case then may be appealed to the HHS Secretary and then to the civil courts. Records of the case are available to the public as the action occurs.

HHS Secretary Margaret Heckler said the new law "should convince those who are tempted to cheat the government that the punishment far outweighs the benefits of the crime."

Hospice Regs Published

The Reagan administration on Aug. 22 published new Medicare payment rates for hospices that are much greater than those in earlier draft regulations which prompted congressional hearings.

The draft regulations which created a furor earlier this year would have capped expenditures per hospice patient at $4,232 and set prospective rates at $53 per day for hospice home care and $57 per day for inpatient hospice care; acute inpatient care was to be paid at the new diagnostic-related group (DRG) rates Medicare will start for hospitals in October.

In a turn around attributed to Health and Human Services Secretary Margaret Heckler, the new regulations eliminate the DRG payment to hospices and set an average daily inpatient rate of $271 a day. They also upgrade staffing requirements and require hospice physicians to deliver care—not just serve as administrators. They do not change the overall cap, but promise to do so if legislation to increase it is approved.

The proposed new regulations are the product of intense negotiations between the National Hospice Organization, the Congress and Secretary Heckler, herself a sponsor of the legislation which created hospice benefits while she was a member of Congress.

They represent a defeat for Office of Management and Budget Director David Stockman who claimed the benefit will cost Medicare $350 million over the next three years and proposed to restrict hospice coverage. Stockman also asked Congress to leave the cap at $4,332.

Instead, Congress voted to increase the cap to $6,500 and President Reagan reportedly has agreed to sign the new measure.

Surgeon General Claims Three Babies Saved by "Baby Doe" Investigators

Surgeon General Everett Koop, M.D., attempting to muster support for the government's latest "Baby Doe" proposals, told the press that government investigators saved the lives of three handicapped newborns this summer.

The three newborns—one with spina bifida, another with spina bifida and hydrocephalus, and a third with hydrocephalus and an imperforate anus—were denied food and treatment in June, according to the Surgeon General's office. The cases were confirmed by pediatric neurosurgeon David McClone, M.D. In all cases, consultation by government-appointed physicians convinced the infant's parents or guardians to consent to treatment, the government claims.

In the first case, the hospital promptly initiated surgery to repair the membrane on the child's back. In the second case, a hospital that did not have the capability of doing surgery referred the infant to a second hospital that refused to do the operation. The Spina Bifida Association became the temporary court-appointed guardian and transferred the child to a medical center which closed the exposed spinal cord and implanted a shunt to drain fluid from the brain. In the third case, a shunt implantation and colostomy were undertaken two days after the start of the investigation.

Neither the names nor the locations of the infants were disclosed.

According to McClone, a member of the Chicago-based region 5 team, physicians were not intentionally withholding treatment; they simply were unaware that new advances in spina bifida surgery could help, he said. "Government dissemination of information benefited the patient, the parents, and the physician. In this way, the government was the prime mover in changing the outcome of the case," he said.

But according to Surgeon General Koop, the infants were not fed because it was decided that their prognosis was poor. "In fact, they were top candidates for surgery and are doing quite well. Somehow, they slipped through the net," said Koop.

"We have successfully investigated and seen successful outcomes of three cases that were reported to us, and two of those were reported by nurses. I think a Baby Doe hotline is a very effective mechanism," said Koop.

News of the three cases came at a politically sensitive time as Congress, the courts, and the Reagan administration are all considering various versions of Baby Doe-style regulations. A new Department of Health and Human Services (HHS) rule, revised after being defeated in court by the medical community, again requires that hospitals post notices warning that it is illegal to withhold medical treatment or sustenance from handicapped newborns. In Congress, two pieces of legislation require that states, as a condition of receiving child abuse grants, develop procedures to insure that proper medical services are provided.

The medical community has questioned the need for the squad-team approach. "We've always felt that it is the role of the government to distribute information and act as a clearinghouse, not deal with it through law enforcement mechanisms. The problem is education, not maliciousness," said an AMA spokesman.

Says Stephan E. Lawton, attorney for the American Academy of Pediatrics: "Rather than have the Surgeon General's office manning telephones across the country and sending untrained police into nurseries, there should be an educational program that is assisted by ethical review committees with special expertise."

Among other investigations recently completed:

- Strong Memorial Hospital in Rochester, NY: A caller alleged that physicians were denying care to Siamese twins. The federal investigation revealed no wrongdoing.
- Yale/New Haven Hospital in New Haven, CT: The newspaper reported neglect of 20 handicapped infants. After an 18-month investigation involving more than 200 medical records, federal officials found no wrongdoing.
- Vanderbilt Hospital in Nashville: An anonymous caller charged that ten children were not being fed or provided proper medical treatment. Federal investigation found no wrongdoing.
- Good Shepherd Hospital in Barrington, IL: The Family Life League complained about failure to provide treatment to handicapped babies. Federal investigators found a child with a wide range of congenital defects unassociated with any chromosomal defect, and could not identify any procedures that might have changed the child's outcome.
- Bloomington Hospital in Bloomington, IN: An infant born with the Down syndrome with esophageal atresia, with a likelihood of lower tracheoesophageal connection, was allegedly denied treatment and sustenance. A judge ruled that the state failed to show that the child's physical or mental condition was seriously impaired or endangered as a result of neglect of food or medical care.
- Crawford Memorial Hospital in Robinson, IL: An anonymous phone call from a nurse to Laura Channing of the Family Life League alleged neglect of a spina bifida baby. Investigators found no emergency need for surgery, noted the risk associated with surgery, and noted that the parents refused to have the surgery performed. According to investigators, the hospital provided all the medical treatment of which they were capable.
- Kapiolani-Children's Medical Center in Honolulu: An infant born with the Down syndrome and an intestinal obstruction allegedly was denied treatment. Although the hospital changed its written consent procedures as a result of the investigation, no wrongdoing was found.
- St. Francis Hospital in Tulsa, OK: A student nurse alleged that the hospital denied nourishment and water to a baby with hydrocephalus and transposition of the Great Vessels. Investigators said the allegation was not supported by medical opinion and that care was consistent with the diagnosis.

announcements

CALENDAR OF MEETINGS

NATIONAL

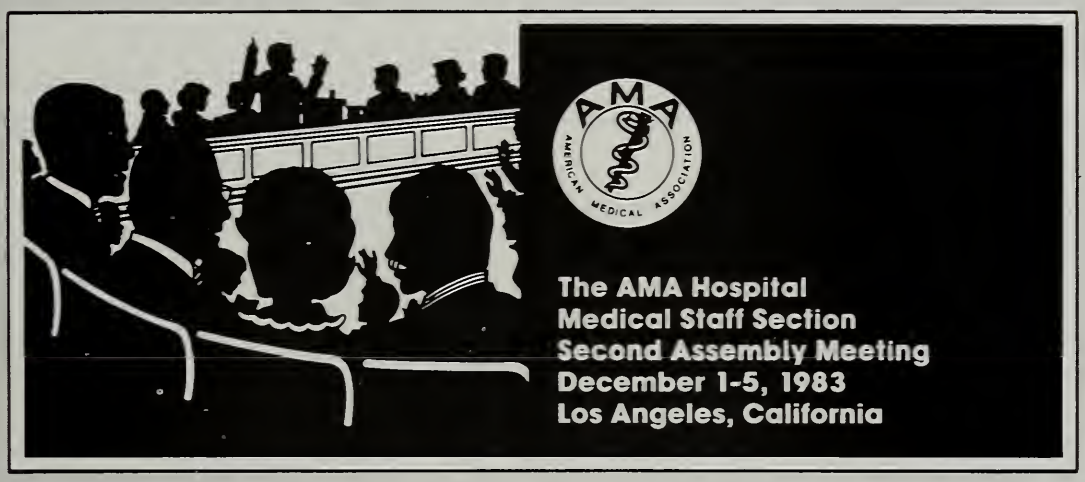
Nov. 1-4	American Academy of Occupational Medicine—New Orleans Marriott Hotel
Nov. 1-11	American Society of Cytology, Denver Hilton
Nov. 3-4	American Pancreatic Association—Ambassador West Hotel, Chicago
Nov. 3-5	Southern Thoracic Surgical Association, Marriott Hotel, Marco Island, Fla.
Nov. 4-5	AMA/AHA National Conference on Medical Control and Accountability in EMS—Chicago Marriott
Nov. 6-9	American Physicians Art Association—Baltimore
Nov. 6-9	Southern Medical Association—Hyatt Regency, Baltimore
Nov. 6-11	American Academy of Physical Medicine and Rehabilitation—Westin Bonaventure, Los Angeles
Nov. 9-12	American Medical Writers Association—Bellevue Stratford, Philadelphia
Nov. 9-13	American Medical Women's Association—Hyatt Regency, Dearborn, Mich.
Nov. 13-17	American Public Health Association—Dallas
Nov. 18-22	Gerontological Society of America—San Francisco Hilton
Dec. 1-2	American Association of Senior Physicians—Best Western Inn, Chicago
Dec. 3-6	American Society of Hematology—San Francisco Hilton
Dec. 4-6	Society for Ear, Nose and Throat Advances in Children—San Diego
Dec. 7-10	Cervical Spine Research Society—The Breakers, Palm Beach, Fla.
Dec. 8-10	National Conference on Advances in Cancer Therapy (American Cancer Society)—New York
Dec. 14-18	American Psychoanalytic Association—Waldorf Astoria, New York
Dec. 17-31	Sixth Annual Winter Seminar, Selective Reviews in Medicine (sponsored by Dade County, Fla., Medical Assoc.)—Aspen, Colo.

STATE

Nov. 1-4	Tennessee Academy of Family Physicians—Gatlinburg

AMA Hospital Medical Staff Members:

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Group sessions will be conducted on various topics of interest to hospital medical staff members. Scheduled presentations will include: diagnostic related groups (DRGs), credentialing, hospital contractual relations, prospective reimbursements, and overall relationships between physicians and hospitals.

Here's your opportunity to effect change. For information contact the AMA Department of Hospital Medical Staff Services at (312) 751-6656.

TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Sc.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanckel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Nov. 2-4	Tennessee Public Health Association Annual Meeting
Nov. 2-5	12th Annual Rhamy-Shelly Lectureship in Urology
Nov. 9-11	2nd Tennessee Perinatal Education Conference
Dec. 3-4	Update in Anesthesiology and the Benjamin Howard Robbins Memorial Lecture

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37202, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

Nov. 2	Developmental Pediatrics
Nov. 10-11	The Mysteries of Sleep and the Modern Practitioner
Nov. 26-Dec. 3	Advances in Medicine—Honolulu
Dec. 3-4	ENT for the Primary Care Physician
Feb. 2-3	Surgical Ostomies
Feb. 25-26	Advances in Radiology
March 17	Update in Emergency Medicine
March 18-23	17th Annual Review Course for the Family Physician
June 11-13	Family Medicine Update—New Orleans
June 14-16	Cardiology Update—New Orleans

Knoxville

Nov. 11	12th Annual Internal Medicine Symposium
June 11-13	Expert Testimony Workshop—New Orleans
June 14-16	Otolaryngology for the Primary Care Physician—New Orleans

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

EAST TENNESSEE STATE UNIVERSITY

Continuing Education Schedule

Nov. 4-5	Current Concepts on Diagnosis and Treatment of Asthma in Children and Adults—Martha Washington Inn, Abingdon, Va.
Nov. 9	The Management of Stress—Bristol, Tenn.
Nov. 16	A Family Therapy Seminar—ETSU
Jan. 7-17	Medical Updates V: A Review of Recent Advances in Medicine—Vail, Colo.
Jan. 19	Controversies in the Diagnosis and Early Management of Breast and Colon Cancer—ETSU

For information contact Sue Hutchinson, M.P.H., Program Coordinator, Office of CME, ETSU Quillen-Dishner College of Medicine, P.O. Box 19660A, Johnson City, TN 37614, Tel. (615) 928-6426, ext. 204.

ST. THOMAS HOSPITAL—NASHVILLE

Nov. 30-Dec. 2 Management of the Critically Ill Patient

For information contact Mr. George Geyerhahn, Director, Medical Learning Center, St. Thomas Hospital, P.O. Box 380, Nashville, TN 37202, Tel. (615) 386-2007.

IN SURROUNDING STATES

UNIVERSITY OF KENTUCKY

Continuing Education Schedule

Dec. 16-17	Peripheral Vascular Disease Symposium
Feb. 19-24	15th Family Medicine Review—Session I
March 9-11	Advanced Cardiac Life Support Courses

For information contact Frank R. Lemon, M.D., Continuing Medical Education, College of Medicine Office Building, University of Kentucky, Lexington, KY 40536, Tel. (606) 233-5161.

BOWMAN GRAY

Dec. 1-3	2nd Comprehensive Breast Disease Symposium. *Credit:* 20 hours AMA Category 1. *Fee:* $300.
Dec. 8-10	Pediatric Imaging Seminar. *Credit:* 20 hours AMA Category 1.

For information contact Postgraduate Course in Medical Sonics, 300 S. Hawthorne Road, Winston-Salem, NC 27103, Tel. (919) 748-4505.

OF SPECIAL INTEREST

AMERICAN CANCER SOCIETY

Dec. 8-10	National Conference on Advances in Cancer Therapy—New York, N.Y. *Credit:* 16.5 hours AMA Category 1.

For information contact Nicholas G. Bottiglieri, M.D., Advances in Cancer Therapy Conference, American Cancer Society, 777 3rd Ave., New York, NY 10017, Tel. (212) 371-2900.

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER

Dec. 7-9	Neurology for the Non-Neurologist—The Westin Hotel, Chicago. *Credit:* 20 hours AMA Category 1.

For information contact University Office of Continuing Education, Rush-Presbyterian-St. Luke's Medical Center, 600 S. Paulina, Chicago, IL 60612, Tel. (312) 942-7095.

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

Nov. 7-11	A Practical Approach to Diagnostic Hematologic Problems—Hotel Del Coronado, San Diego. *Credit*: 31.5 hours AMA Category 1. *Fee*: $675.
Nov. 7-11	Diagnostic Hematology—Hotel Inter-Continental, San Antonio, Tex. *Credit*: 33 hours AMA Category 1. *Fee*: $650.
Nov. 14-17	Surgical Pathology of the Lung and Related Lesions of the Mediastinum—ASCP Educational Center, Chicago. *Credit*: 24 hours AMA Category 1. *Fee*: $600.
Nov. 30-Dec. 2	Micro, Mini and Big Computers: Computer Technology as it Applies to the Medical Laboratory—Hotel Royal Plaza, Lake Buena Vista, Fla. *Credit*: 21.5 hours AMA Category 1. *Fee*: $475.
Dec. 5-7	Problems in the Diagnosis and Management of Breast Cancer—Cottonwood Resort, Scottsdale, Ariz. *Credit*: 19 hours AMA Category 1. *Fee*: $575.

For information contact ASCP, Regional Educational Activities, 2100 W. Harrison St., Chicago, IL 60612, Tel. (312) 738-1336, ext. 129.

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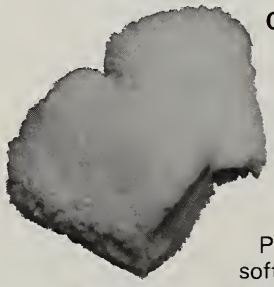
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Knoxville, TN 37920

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Development and Use of a Maternal Referral Form in the East Tennessee Regional Obstetrical Program

PATRICIA G. CISSNA, R.N. and JOHN R. SEMMER, M.D.

The East Tennessee Regional Obstetrical Program, located at the University of Tennessee Center for the Health Sciences in Knoxville, was established as part of a statewide perinatal regionalization program. It is one of four such centers sharing responsibility for the statwide network. Since the East Tennessee program began officially accepting maternal referrals on Jan. 1, 1978, it has witnessed a 300% increase in the number of high-risk maternal referrals.

The University of Tennessee Hospital in Knoxville functions as the only Level III referral center for a 27-county area in East Tennessee. Rapid growth necessitated production of an accurate record-keeping system to identify referred patients. For this reason, a Maternal Referral Form (Fig. 1) was developed.

Contributors felt the form should be brief, yet contain critical information needed on each maternal referral. Physicians and nurse coordinators principally used the form to track referrals progressing into, through, and out of a busy university medical center. The overall objectives of the form were:

1. To assist proper identification of patients transported to the tertiary center as high-risk maternal referrals;
2. To serve as a quick reference for physicians and nurses within the tertiary hospital regarding patient allergies, medications received in the past 24 hours or en-route, etc.;
3. To facilitate proper follow-up information back to both the referring physician and the nursing staff from the referring hospital;
4. To assist with data collection and enhance statistical reporting to the state agencies.

Although the form required brevity, five key component sections were essential.

The initial part of the Maternal Referral Form identifies *Fundamental Patient Information,* including name, age, county of origin, referring physician, referring hospital, and addresses of each. This facilitates proper identification of a maternal transport, aids follow-up, and allows rapid data collection.

The second part, *Vital Information,* serves as a quick reference for physicians and nurses in the referral center hospital as to patient blood type and Rh, allergies, and time of gestation.

Maternal Problems and Medications involve the third section on the referral form. The checklist can be used to indicate the reason for transport.

From the East Tennessee Regional Obstetrical Program, University of Tennessee Memorial Research Center and Hospital, Knoxville.
Reprint requests to 1924 Alcoa Highway U-38, Knoxville, TN 37920 (Dr. Semmer).

THE UNIVERSITY OF TENNESSEE MEMORIAL HOSPITAL

MATERNAL REFERRAL FORM

PLEASE FILL OUT THIS FORM AND SEND WITH PATIENT, ALONG WITH PERTINENT CLINICAL RECORDS (PRENATAL RECORDS IF AVAILABLE, COPY OF HOSPITAL CHART, RECENT LAB DATA, ETC.)

Date_____

Patient's Name _____ Age_____ Grav_____ Para_____ AB_____

Patient's Address _____ County_____

Referring Physician _____ Referring Hospital_____

Referring Physician's Address _____ Phone_____

VITAL INFORMATION

LMP_____ EDC_____ Weeks Gestation_____ Blood Type_____ RH_____ Allergies _____

MATERNAL PROBLEMS

- ☐ Premature labor
- ☐ Premature rupture of membranes
- ☐ Placenta previa
- ☐ Hemorrhage
- ☐ Other _____
- ☐ Abnormal presentation
- ☐ Diabetes
- ☐ Pre-eclampsia
- ☐ Eclampsia
- ☐ Suspected IUGR
- ☐ Post-date pregnancy
- ☐ Pyelonephritis
- ☐ Heart disease

MEDICATIONS PREVIOUS 24 HOURS

MEDICATION	DOSAGE/ROUTE	TIME GIVEN

TRANSPORT MODE AND TIME

- ☐ Private auto
- ☐ Ambulance
- ☐ Air transport
- ☐ Other _____

Call by referring M.D. made:
Time_____
Departure time _____
Arrival time _____
Transport authorized by:
_____
Accompanied by: _____
_____
RN____LPN____Paramedic __
EMT____ M.D.____ Other ____
Problems in-Route:

TREATMENT OR OUTCOME (To be completed by Regional Obstetrical Office)

Hosp. # _____
Initial Treatment: _____
_____
_____

Delivery Information

Infant Admitted To: PICU ☐ NBN ☐ ICN ☐ Exp. _____ Stillborn ☐

Date_____ Time_____
Apgars: 1 min._____ 5 min._____ Weight_____ Sex _____
Type of Delivery and Comments:
Vaginal Cephalic_____ Vaginal Breech_____ Cesarean Section_____ Other _____
Anesthesia _____ Complications _____
Episiotomy _____
Condition and/or Post-Partum Notes:

Attending Physician _____
See Attached Report for Infant Progress D/C Date

PLEASE HOLD REFERRAL FORM FOR REGIONAL OBSTETRICAL OFFICE

Figure 1. Maternal Referral Form.

Medications given in the past 24 hours should be listed along with intravenous fluids or blood that might be infusing during transport.

Section four (the last of the form completed by the referring hospital or physician) deals with transport mode and time, medical personnel accompanying the patient, and any problems enroute. Although the departure and arrival times may seem insignificant, uses include calculating average time necessary to transport a mother from one location to another. The length of travel time may later help determine whether there is time to transport a mother to the university center, or whether a telephone consultation regarding management is all time allows. The list of accompanying medical personnel is used to determine future educational needs regarding transport.

These initial sections of the form should be completed by the referring physician or hospital. All copies of the referral form are to be sent for appropriate distribution. In addition, other pertinent clinical records, prenatal records, and laboratory data should be included.

Section five, *Treatment or Outcome,* at the bottom of the form, is to be completed by the regional obstetrical office staff. It includes the initial treatment plan and delivery information, if appropriate. Patients are visited by the nurse coordinator and a daily progress note made on the form. A note is made on the day of discharge which includes time and place the patient is to be seen for follow-up. When treatment is complete, a copy of the Maternal Referral Form and infant progress report are forwarded to the referring hospital or physician's office.

The Maternal Referral Form has been in use since November, 1978, in East Tennessee. Placement of forms in all referring hospitals and physicians' offices ensures and enhances their proper use. It has met the East Tennessee regional objectives and aided in providng follow-up information to the referring physicians and nurses.

Acknowledgment

We owe a special word of thanks to all East Tennessee referring physicians and nurses for their continued cooperation and support in the use of the Maternal Referral Form.

APRIL 1984

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11 TMA 149TH ANNUAL MEETING Hyatt Regency Hotel—Knoxville	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	NOTES				

Commentary

AMA Annual '83—Chicago

JOHN B. THOMISON, M.D.

"American medicine is the best in the world because it has remained private." These words from President Ronald Reagan brought applause in the first presidential address before the AMA House of Delegates since Richard Nixon launched his war on drug abuse at the AMA Convention in Atlantic City in 1971. The President was less complimentary as he spoke of efforts to reduce the cost of health care, but in general, his audience was with him. Medicine had high hopes with the election of Mr. Reagan, who had announced his opposition to controls, and a return to the marketplace. The lustre wore off as his administration launched into that marketplace an array of federally sponsored and sometimes federally funded competitive mechanisms, and as some of the old controls refused to die. Nevertheless, considering the alternatives, we have not fared too badly; this administration has done medicine far less harm than that of any of the other contenders would have, judging from their record and their announced intentions.

The visit of the President overshadowed all other news from the 1983 Annual Meeting in Chicago. After all, it is not every day most of us have the opportunity to see a real live president; in addition, though we are familiar with his image through television, that medium does not do justice to the man's great charm and personal magnetism. Security was tight, and there was a long wait after the audience was seated, but we were serenaded by a military band and surrounded by friends, so the time passed quickly. All in all, it was worth the effort.

Though the President had high praise for the quality of American medicine, his major emphasis was on cost containment, reinforcing my confirmed prejudice, gained from the administration's health care activities, that as a priority, quality of care ranks a poor second to cost control. Nearly all of the control measures introduced by this administration, as well as by previous ones, are bound to have a deleterious effect on both quality and availability, disclaimers to the contrary notwithstanding.

And now down to business. For the dull statistics, 351 delegates, 281 of them representing state medical associations, considered 147 resolutions and 74 reports. As always, many of the reports are true masterpieces, and I try to publish the ones dealing with the issues that affect you most; in many instances this time, though, that is clearly impossible, as many of them are extremely long. For instance, the Council on Long Range Planning has been analyzing a number of environmental trends that are likely to have significant impact on both physicians and organized medicine; such trends include factors in the general economy, demands for medical care, supply of medical resources, the structure of the medical care sector, the changing roles in the health sector, and trends in public and physician attitudes. Though the Council will publish a concise overview entitled *The Environment of Organized Medicine*, the reports on which it will be based give a much more detailed study, with much interesting and important background information. Three of these, Report C, entitled "Implications of Trends in Public and Physician Attitudes"; Report D, "Implications of Growing Physician Manpower"; and Report E, "Implications of Demographic Change in the U.S. Population," were adopted by this House. Their combined length runs something over 60 close-typed pages, which would amount to approximately the same number of printed pages, and although they make instructive reading, it is clearly impossible to print them in the *Journal*. The reports of the Council on Scientific Affairs (CSA) are now being pub-

lished in book form, available to all physicians, so that instead of publishing any of them, as I have previously, I will simply give you a brief summary later on in this article of what some of the reports covered.

I have already discussed (*J Tenn Med Assoc* 76:678-679, 1983) the action taken by the House on items referable to continuing medical education, i.e., the Essentials and their Guidelines, and the Protocol for Recognition of State Medical Societies to Accredit Intrastate Continuing Medical Education Sponsors. As I stated at that time, the Protocol was adopted by the House, and by all other parent bodies of the Accreditation Council for Continuing Medical Education (ACCME) save one, the Association of American Medical Colleges (AAMC), which sent it back for further amendment. Those demands would considerably weaken the position of the state associations in their accreditation programs.

For the first time, *the Hospital Medical Staff Section*, formed by the House at its 1982 Interim Meeting, met just prior to the meeting of the House with nearly 700 representatives of hospital medical staffs in attendance. It elected section officers, including an AMA delegate, who was seated in the House during this Annual Meeting. There are currently 7,000 U.S. hospitals eligible to send representatives, and all are being urged to do so. If this should happen, one could foresee considerable logistical problems when the section meets in Los Angeles December 2-4, just preceding the Interim Meeting of the House.

At the time of the Annual Meeting in June, final regulations for implementation of *the prospective payment system for hospitals* known as diagnostic related groups (DRGs) had not yet been formulated and were still in the hearing stage. As of last month (August), the regulations were published, and by the time you read this, will have gone into effect (October, 1983). This subject was addressed by two reports, Board of Trustees Report LL and Council on Medical Services (CMS) Report A. These reports were filed, with the recommendation that future studies of a prospective payment system for hospitals pay particular attention to the preservation of the quality of medical care; consideration of alternative approaches to the prospective pricing system; the application of DRGs to physician reimbursement, with special concerns for establishing no single rigid system of prospective pricing or fee determination; and rapid development of educational programs for physicians regarding the system. In addition, Resolution 58, adopted as amended, called for an AMA program of education and assistance on DRGs to be instituted as quickly as possible. It likewise called for the Association to support the concept that the individual hospital medical staff's responsibility is to insure appropriate quality of care for patients.

In a similar vein, the House adopted Substitute Resolution (SR) 71, which called upon the Association to urge government agencies responsible for reimbursing hospitals under Medicare and Medicaid to pay their fair share of the cost of hospital care, based on full reimbursement for expenditures in a beneficiary's behalf, regardless of whether the system be based on prospective rate setting or cost reimbursement. The House was concerned with the "growing evidence that inadequate reimbursement by government-funded third party programs has forced hospitals to shift more costs to patients enrolled in private health insurance plans, and that proposals such as prospective reimbursement and vouchers for Medicare have the potential to exacerbate the cost shifting problem." It therefore adopted Resolution 8, which asks that the AMA study the effects of cost shifting on patients, physicians, third party payors, and hospitals.

For purposes of the Medicare statute, the House adopted SR 22, which modifies the existing *definition of physician* to include doctors of osteopathy. It now reads "A physician is a person who, having been regularly admitted to a medical school or school of osteopathic medicine duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in medicine or osteopathic medicine, and has acquired the requisite qualifications to be legally licensed to practice medicine or osteopathic medicine." The House further asks in SR 15 that "the AMA initiate and support legislation in the 98th Congress to amend appropriate sections of the Social Security Act to limit the use of the term 'physician' to describe only doctors of medicine or osteopathic medicine, not only in the act itself, but also in regulations promulgated thereunder, without changing the current level of coverage services provided by Medicare."

The resolution (SR 15) also instructs the AMA to continue to give high priority to efforts toward a prompt withdrawal of regulations to implement Section 108 of the Tax Equalization and Fiscal

Responsibility Act (TEFRA) relating to the Medicare programs payment of physician services, and "until such withdrawal, continue its opposition to inappropriate elements of these regulations, including arbitrary definitions of the practice of medicine and limits on medical consultations, through appropriate actions in the legislative, executive, and judicial arenas."

Another action concerning *mechanisms for reimbursement of physician services* is described in the very lengthy CMS Report D, which generated considerable discussion. It suggests that serious consideration be given by all third party payors to switching to an indemnity system of payment for the majority of services provided by physicians, instead of the "usual, customary, or reasonable" (UCR) basis of payment. It also recommends that "members of the House consider the matter of physician reimbursement by means of indemnity vs. UCR with their constituents and other concerned parties over the next six months, communicate any additional views and comments to the Council, and come to the next Interim Meeting of this Association prepared to further express their views on the subject." The entire matter will be further aired at the Interim Meeting in December. The report is quite lengthy, running 17 pages, but the salient features are given in the synopsis, which is appended to this report (Appendix A).

One of the most hotly debated items at this meeting of the House, as well as at several previous ones, and in between times by concerned individuals and hospital staffs, has been the revision of the *Accreditation Manual for Hospitals* of the Joint Commission on Accreditation of Hospitals (JCAH). No less than 21 resolutions were introduced into the House for this meeting addressing the matter. In lieu of all of these, the House adopted SR 116, which reads:

> Resolved, That the House of Delegates commend the American Medical Association Board of Trustees for its responsible consideration of the difficult issues confronting the Joint Commission on Accreditation of Hospitals, and affirm the following principles as the basis for any revision of the Medical Staff Section of the "Accreditation Manual for Hospitals":
>
> 1. Continue the use of the term "Medical Staff" in the title of the chapter and throughout the Manual;
> 2. Delete any specific references to limited licensed practitioners now contained in the Medical Staff chapter of the 1983 "Accreditation Manual for Hospitals." This does not preclude such practitioners from having hospital privileges consonant with their training, experience and current competence if approved by the normal credentialing process.
> 3. Provide consideration of qualified limited licensed practitioners in accordance with state law and when approved by the executive committee of the medical staff and by the governing board and when their services are appropriate to the goals and missions of that hospital, taking into account the training, experience and current clinical competence of the practitioners;
> 4. Provide that the executive committee of the medical staff is composed of members selected by the medical staff, or appointed in accordance with the hospital bylaws. All members of the active medical staff, as defined in the Medical Staff Bylaws, are eligible for membership on the executive committee, and a majority of the executive committee members must be fully licensed physician members (Doctors of Medicine or Doctors of Osteopathy) of the active medical staff in the hospital;
> 5. Assure that the medical care of all patients remains under the supervision and direction of qualified, fully licensed physicians (Doctors of Medicine or Doctors of Osteopathy); and
> 6. Assure that the continued high quality of care, credentialing of physicians and other licensed practitioners, and effective quality assurance programs remain under the supervision and direction of fully licensed physicians; and be it further
>
> Resolved, That the AMA Board of Trustees direct its Commissioners to the Joint Commission on Accreditation of Hospitals to request a delay in final approval to any revisions to the Medical Staff chapter of the "Accreditation Manual for Hospitals" until after soliciting and considering comments from the AMA House of Delegates, medical societies, hospital medical staffs, hospitals, and medical specialty organizations.

Another hotly debated and at the same time emotional issue facing the House at this session was simply a continuation of a debate that has been going on for several years now about *graduates of foreign medical schools (FMGs)*, both U.S. citizens and aliens. At last year's Annual Meeting the House adopted a report recommending that state medical licensing boards require graduation from a school accredited by the Liaison Committee on Medical Education (LCME) as a prerequisite for an unrestricted license to practice medicine, or failing that, to provide documentation of graduation from a school meeting equivalent standards and performance evaluation requirements. Responding to an accusation that basing licensure on the single equivalency examination makes a mockery of our educational system, the resolution was aimed at further stemming the tide of ill-prepared students into the United States.

To keep the debate in perspective, one needs to think back a few years to the time when there

was a serious shortage of physician manpower in the United States. Medical schools were encouraged to increase their number of graduates, new medical schools proliferated, and the bars were let down for licensing of graduates of foreign medical schools, partly in response to the needs of our own citizens who were matriculants in those schools. The equivalency examination (ECFMG) was developed to qualify those graduates for the large number of unfilled housestaff slots in the nation's hospitals, and subsequently to practice, particularly in rural underserved areas. Through this process, the United States acquired many fine physicians, as well as some not so fine.

With the increased output of our medical schools, along with dwindling federal support and the economic recession, available first year housestaff positions are presently barely sufficient to meet the needs of our own graduates, and competition for patients has become intense in some of the more heavily populated areas. The response by both the private and governmental sectors has been to declare that there is an oversupply of physicians, resulting in a move to decrease the number of graduates of our own medical schools, and to restict the influx of foreign graduates.

Although it was unintentional, the measure passed last year worked a hardship on some of our well-established and highly respected FMGs, as for reciprocity it would require documentation of graduation from medical schools that in some instances no longer even exist, or if they do, they exist in Communist countries in a form so altered as to be unrecognizable, and unavailable for purposes of documentation. A resolution was therefore proposed that would exempt foreign medical graduates currently licensed by any state from retroactive requirement to provide documentation of graduation from a school meeting "equivalent standards and performance evaluation requirements" when applying for a new license in another state. The debate was heated, and in some instances moot, as it was pointed out that this is in fact a matter to be dealt with by each individual state licensing board, over which the AMA has no authority. What the House finally adopted was SR 108, which reads:

> Resolved, That the American Medical Association recommend to medical licensing boards that those physicians who are foreign medical graduates currently duly licensed by any licensing jurisdiction in the United States should not be denied endorsement of their licenses, or denied admission to reexamination when this is required by law, solely because they are unable to provide documentation of graduation from a school meeting "equivalent standards and performance evaluation requirements" to those of programs accredited by the Liaison Committee on Medical Education; and be it further
>
> Resolved, That it is recommended that licensing boards, in reviewing applications for licensure endorsement, take into account a physician's ethical standards and his or her having practiced medicine of an acceptable quality.

Another action taken by the House was the adoption of SR 23, which in part reaffirmed action taken by the 1982 House in adopting CME Report B (A-82). Resolution 23 called upon the AMA to urge the American Hospital Association to implement AMA policy objecting to the practice of substituting clinical experience provided by U.S. institutions for core curriculum of foreign medical schools, and disapproving the placement of any medical school undergraduate student in hospitals and other medical care delivery facilities lacking education resources and experience for supervised teaching of clinical medicine. This resolution was in response to the practice of many of the approximately 15,000 American citizens enrolled in medical schools outside the United States and Canada, which often have no clinical facilities of their own, who often arrange their own "core curriculum," to be obtained in hospitals in this country. SR 23 reads as follows:

> Resolved, That the American Medical Association House of Delegates reaffirm Recommendation 32 of Report B of the Council on Medical Education (A-82) as follows:
>
> "Policies governing the accreditation of U.S. medical education programs specify that core clinical training be provided by the parent medical school; consequently, the AMA strongly objects to the practice of substituting clinical experiences provided by U. S. institutions for core clinical curriculum of foreign medical schools. Moreover, it strongly disapproves of the placement of any medical school undergraduate students in hospitals and other medical care delivery facilities which lack educational resources and experience for supervised teaching of clinical medicine"; and be it further
>
> Resolved, That the AMA publicize the policy and request the American Hospital Association to make this policy known to its member hospitals; and be it further
>
> Resolved, That any medical school which has affiliations with hospitals sponsoring core clerkships present evidence that the clerkships thus provided are comparable to those provided for their own students, according to the guidelines of the Liaison Committee on Medical Education.

A number of items were addressed having to do with problems stemming from both the increased competition in medicine consequent to the burgeoning numbers of physicians in some areas, and the insertion into the marketplace of governmental programs. In its Report GG, the Board of Trustees addresses the subject of *commercialism in the practice of medicine*, a threat to the profession that has been one of the targets of the AMA ever since its organizational meeting in 1847. Believing that commercialism can endanger the art and professionalism of the practice of medicine, the AMA urges that physicians reaffirm their commitment to the primary mission of the medical profession, which is taking care of patients, and avoid the trap of identifying themselves as a part of a health care industry. Since the report contains many caveats for the practitioner, dealing in specifics, I commend it to your attention, and to that end, will carry it in a subsequent issue of the *Journal*.

As alluded to previously, the current emphasis on cost control endangers the quality of medical care, and this can be eroded further unless physicians retain firm control of medical staffs. This was addressed in the resolution having to do with the JCAH, cited above, and further in several resolutions concerning *the composition of hospital governing bodies*. SR 50 resolved that the AMA endorse the concept of medical staff representation on all committees of the governing board and administration of American hospitals, and in like manner, hospital administration representation on administrative committees of the medical staff, so as to receive maximum input from all concerned in the governance of hospitals. Furthermore, SR 134 resolved that "the AMA recommend that hospital medical staffs adopt bylaws that enable such medical staffs to retain prerogatives and responsibility, as granted by the hospital governing body, for credentialing all physicians and other licensees who apply for clinical privileges, including those who seek to enter into contractual agreements with hospitals." In addition, since the hospital medical staff officers are frequently chosen by the board or the administration, SR 144 urged that "the AMA support the right and responsibility of hospital medical staffs to have an open and democratic nomination and election process for medical staff officers." In addition, Resolution 146 urges that hospital medical staffs have their own attorneys, separate from the legal counsel of the hospital board and administration. It reads: "Resolved, that the AMA encourage medical staffs to consult with their own attorneys or those of their county medical society, state medical society, and/or AMA in securing knowledgeable legal counsel as appropriate."

Although it was the announced intention of the Reagan administration to abandon *the peer review concept* as embodied in the previous statutes, TEFRA contains a series of provisions, subtitled the Peer Review Improvement Act of 1982, that authorizes the establishment of utilization and quality control peer review organizations (PROs). In addition, the Social Security Reform Act of 1983 (PL 98-21) contains provisions applicable to the PRO program, specifically, that funding is to come directly from the Medicare trust fund, at a rate "not lower than that for the PSRO program in fiscal 1982," estimated to be at a level of approximately $100 million in fiscal 1984. As of October 1984, all hospitals must have a contract with a PRO for the review of services provided to Medicare inpatients in order to receive Medicare reimbursement. (The penalty applies whether or not there is a federally recognized PRO in the area.) The Council on Medical Services (CMS Report F) considers that many of the regulations governing these PROs will be inconsistent with AMA policy that the interests of the patient will be served only if the review organization is physician controlled. It expressed the opinion that there are strong sentiments in segments of the regulatory agencies for fiscal intermediaries to conduct medical review, with the objective of cost control, at the expense of quality assurance, which would be fiscal and not medical peer review. It is incumbent on all physicians to be sure that physicians have adequate input into the system. If this is not done, the quality of medical care will surely suffer. Since peer review is currently not applicable to governmental health facilities, the House adopted SR 13, which resolved "that the AMA support the provision of comparable peer review systems of medical services offered in public, private, and governmental hospitals."

Once again, it has become necessary for the Association to oppose federal governmental subsidization of *health maintenance organizations (HMOs)* in competition with the private sector. SR 104 resolved "that the AMA continue to support the concept of neutral public policy and fair

market competition among all systems of health care delivery, with the growth of HMOs being determined not by federal subsidy, preferential federal regulations, or federal promotion, but by the number of people who prefer this type of delivery system."

At the 1981 Interim Meeting, the House referred Resolutions 27 and 64, having to do with *freestanding emergency medical care centers,* to the Board of Trustees, who assigned them to the Commission on Emergency Medical Services for study. Resolution 27 requested the AMA to study these facilities, and Resolution 64 asked the AMA to define a true emergency medical center and establish criteria for its operation. The Board of Trustees has reported the findings in its Report L, which adequately defines these facilities, and presents criteria for their operation. As might have been anticipated, the report has subsequently drawn considerable negative response from a number of quarters. The Board indicated that with the Commission it would continue to study the appropriateness, quality, and cost considerations in the provision of services by freestanding emergency medical care centers, and report as necessary to the House. The House adopted the amended report, which will be published in a subsequent issue of the *Journal.*

In addition to the freestanding clinics, the Board, responding to Resolutions 61 (A-81) and 18 (I-82), also addressed the subject of *satellite emergency clinics.* The AMA referred the two resolutions to its Committee on Medicolegal Problems, which considered some of the issues involved in satellite and commercial clinics, with particular attention to practices that may lessen the quality and continuity of primary care delivered to patients, and the cost of such delivery systems. At present, the Committee is conducting a comprehensive review of the legal and socioeconomic literature dealing with the development of such facilities.

During these days of economic recession, with increased unemployment and concomitant reductions in Medicaid and disability programs, increasing numbers of people are finding it difficult, if not impossible, to obtain necessary health care. In its Report E, concerning *aid for the needy*, the Council on Medical Services reports that the medical profession has taken the initiative in helping to resolve such problems, describing some of the programs that local physicians and medical societies have developed to enable such individuals to receive health care services they otherwise would have had to do without. These actions have been commended by the White House, and some of them publicized by the media. The AMA has endorsed this approach to a problem that is best addressed at the local level. This is in the finest tradition of medicine, and is the way medicine was always practiced until federal programs and third party carriers took such matters out of the hands of the medical profession, I firmly believe to the detriment of both the profession and the public. Many younger physicians have never learned that this is one of their obligations to society.

In a similar vein, the Board of Trustees in its Report JJ, entitled *"Health Care for the Aging and the Aged,"* describes the initiative by an AMA-ANA Task Force in this area. The Task Force recommended studies of new means to provide health care for the aged, development and evaluation of alternative modes of care, development of public policy with respect to the care of the elderly based on the best available evidence, and maintenance of the AMA-ANA liaison on health issues concerning the aged through an identifiable unit in each organization.

The activities of the AMA toward the problems of the elderly have been directed toward gathering and analyzing information on such topics as disability among the aged, hospice care, the physiology of aging, and the nutritional status of the aging. In the planning stage, in cooperation with other health organizations interested in providing health care to the aged, are conferences in formal and informal liaisons with other national health organizations, studies of the effects of retirement on the aged, development of an aging "model," and investigation of alternative mechanisms to provide and to finance health care for the aged. In the next 50 years, with the total population expected to increase by 40%, but the population over 65 years to more than double, and the population over 75 to triple.

Faced with increasing competition, and concomitant decreasing sales due to many factors, but primarily to the recession, some pharmaceutical manufacturers have shown increasing interest in *the advertising of prescription drugs directly to the public* instead of maintaining the traditional avenues of advertising only to the health profession. Though this is not mandated by law, and although the medical profession has come out strongly for imparting maximum information to

the public at large about the effects of all drugs, it is also a firm conviction that information delivered through the media, especially TV and radio, is likely to be too brief to be anything more than troublesome and potentially dangerous where the drugs are used as treatment. The FDA is charged by law to monitor the accuracy and suitability of advertisements for prescription drugs, but because such drug products have not been advertised extensively to the public, the FDA has had little experience in regulating this kind of activity. It has, therefore, deferred issuing regulations or guidelines, and has instituted a series of public hearings with health professionals and consumers in order to determine the attitudes of the public and physicians toward advertising of prescription drugs to consumers, and the accuracy and effectiveness of advertising content. The FDA has asked for a moratorium on any further direct advertising until it can establish a regulatory policy.

The Board of Trustees has addressed the matter of direct prescription drug advertising in its Report KK, in which it commends the ethical pharmaceutical industry for its restraint and its measured response to increasing public demand for more information on prescription drugs. In a statement to the FDA, the Board has said: "We recognize the importance of gathering as reliable information as possible on the attitudes of physicians, the public, and the pharmaceutical manufacturers toward such advertising and the effects on patients and physicians of public advertising of prescription drugs. We support the efforts currently under way in the FDA to gather such information prior to arriving at a decision. We also support the moratorium on such advertising that you have recommended to pharmaceutical manufacturers and to advertising agencies and the media."

The Council on Scientific Affairs has addressed with its usual thoroughness and accuracy a number of important issues, always with the disclaimer that "this report is not intended to serve as a standard of medical care: standards of medical care which are determined locally and are constantly subject to change are established on the basis of all the several facts of the individual case."

CSA Report B, entitled *"Methaqualone: Abuse and Limits of Its Usefulness,"* engendered a great deal of brisk debate. The Council closed its report as follows: "The high order of abuse potential and high incidence of dependence risk of methaqualone, combined with the availability of hypnotics of equal or greater efficacy, argue for avoiding the prescription of this drug in patients other than those with porphyria." The quarrel in the reference committee was not with limiting prescription of the drug, but with allowing it to be used at all, some calling it a dreadful drug without redeeming features. The Council decided not to oppose the drug totally, because, said a member of the Council in defense of the report, "if a drug is transferred from Schedule II to Schedule I because it is abused, it will open a Pandora's Box. No one should make drug abuse an excuse for the government to make medical judgments legislatively."

In response to the amended Resolution 126 (A-80), which urged the AMA to heighten the awareness of physicians about circumstances associated with the *reproductive health of workers*, the Council considered all aspects of the reproductive cycle, including male and female fertility, mutagenicity, teratogenicity, fetotoxicity, and postnatal effects of physical forces, as well as toxic chemicals, on the reproductive cycle. A part of the results of its study are described in its Report C, entitled "Effects of Physical Forces on the Reproductive Cycle." In it, the effects of such forces as atmospheric pressure, electric and magnetic fields, gravity and acceleration, hyperthermia, hypothermia, ionizing radiation, noise, optical radiation, radiofrequency/microwave radiation, ultrasound, and vibration are all described. The Council summarized by reporting that to date there have been no reports to implicate electronic and magnetic fields, gravity and acceleration, noise, optical radiation including lasers, ultrasound, or vibration as having harmful effects on reproduction in either human beings or animals. At levels above 12,000 feet, adverse reproductive effects have been observed in men and women, the conceptus, and certain laboratory animals. Hyperthermia in excess of 40°C has been shown to affect the man and the conceptus as well as the reproductive capacity of certain animals. That ionizing radiation can cause injury to all is well known, and depends on dose and duration of exposure. No well documented injurious effects have been reported from radiofrequency/microwave radiation. The report closes with the comment that "there is need for more well designed and controlled studies to be per-

formed in all of these areas of exposure at maximum tolerated levels to physical force before it can be determined with certainty that no ill effects will accrue to the reproductive cycle, especially in assessing harmful effects from low level exposure over long periods of time."

The Council further addressed this subject in its Report H, entitled "Effects of Pregnancy on Work Performance." The report offers suggestions regarding safe and healthful job placement for the patient and her conceptus during the various stages of pregnancy.

In its Report D, the Council contrasts the efficacy of *the Heimlich maneuver (abdominal thrust) and back blows* in choking. Its recommendation was "that the AMA adopt the following position with regard to treatment of the choking victim: In the First Aid management of the obstructed airway it appears that a combination of back blows and abdominal thrusts is more effective than either one alone. The abdominal thrusts may precede the back blows, and if both of these fail, then there should be a finger sweep of the mouth and then a repetition of the maneuvers. If all of these maneuvers fail, a tracheostomy should be done immediately."

Report E, entitled *"Update on Venereal Disease,"* notes that there are many more possible agents of sexually transmitted disease than were previously suspected, and recommends that medical students, primary care residents, and physicians in various specialties familiarize themselves with these diseases. In supporting the report, several in reference committee testimony recommended that the report incorporate more information on economic consequences of sexually transmitted diseases, public education efforts, and adequacy of funding for research and education committees. The Council agreed to enlarge its report as quickly as possible.

Report F, entitled *"Combined Modality Approaches to Cancer Therapy,"* is an extensive recitation of the uses of combined chemotherapy, categorized under specific disease headings. It is a very comprehensive report, and lists as well those neoplasms having possible benefits and those having no benefits. The report should prove definitive in this area.

Report G, entitled *"Current Issues in Pediatric Immunization,"* describes current issues in pediatric immunization. It recommends continued support for the current level of pediatric immunization programs and development of an educational program for the public to inform parents of the importance of immunization, to remind physicians of the importance of the complete history and physical examination in evaluating a patient for vaccination, and to encourage research to improve vaccine safety, with special attention to the pertussis vaccine. The Reference Committee commented that it believed the adoption and wide dissemination of this report will accomplish much to put the matter on a sound scientific basis and dispel apprehension about pediatric immunization.

Other resolutions adopted by the House that will doubtless be the subject of subsequent CSA reports included Resolution 76, which called upon the AMA to develop advisories for physicians that will assist them in responding to the acquired immunodeficiency syndrome (AIDS); Resolutions 57 and 70, which ask the AMA to study indications, efficacy, safety, and potential benefits and risks of chelation therapy, including those diseases and conditions, among them arteriosclerosis, for which it is being advertised to the public; Resolution 141, which asks the AMA to study the recent trends in the levels of prenatal and infant care and the impact on our nation's infant and child health status; Resolution 12, which asks that the CSA update its 1981 report on dioxin, and that the AMA institute a public information campaign to transmit accurate information on dioxin; and Resolution 137, which calls upon the AMA to develop and distribute to students and residents appropriate materials stressing the importance and necessity of the autopsy as a service both to the medical community and to society, to provide guidelines for obtaining medicolegal consent from families for this procedure, and to investigate means of encouraging a higher proportion of autopsies.

This is by no means all the House considered, but it hits the high spots. Several housekeeping items were considered and adopted, including an invitation to the American Osteopathic Association and the National Medical Association to send official observers to the meetings of the House of Delegates, with the privilege of the floor by invitation. The House granted permission for constituent medical society presidents to sit in a delegate's seat, as is now done by alternate delegates, at the discretion of his state's delegation; it increased the size of the AMA Board of Trustees to provide for a resident physician member, who would be elected by the House to a term of two years with a maximum of three terms. In line

with the AMA's encouragement of residents to participate in the decision-making process at all levels, Resolution 37, entitled "Resident Participation on Hospital Committees," encourages the inclusion in residency programs of education about hospital staff organization, the function of hospital committees, and the several responsibilities of attending staff membership, and in addition, recommends that hospitals with graduate medical education programs be encouraged to include residents on hospital executive, fiscal, and other committees.

An editorial in the *AM News* just following the meeting called the AMA Annual Meeting democracy in action. By any definition, it was. Although the AMA employs a representative form of government, the reference committees are open not only to every member, but to anyone, non-physicians included, who feels he has something to contribute, if he will take the trouble to register. From this diversity of opinion, the reference committee formulates recommendations, and after further debate the House takes action. Although the House does not speak for every physician on every issue, through this process it will have developed a consensus position, and in this way, it is speaking for American medicine, whether you think it is or not. If you think it does not speak for you, you should attend one of the meetings, where you can always make your opinions known and have them considered.

APPENDIX A

PAYMENT FOR PHYSICIANS' SERVICES—SYNOPSIS

Present Association policy, which supports freedom of patients to choose their source of care and freedom of physicians to choose their method of payment—including fee-for-service, capitation, or salary—continues to be appropriate.

Within the fee-for-service approach, current AMA policy supports the basing of third party payment levels on the "usual and customary or reasonable" concept, and the majority of private and public payors use the "UCR" concept in establishing payment levels. However, the increasing costs resulting from this approach have caused both private and public payors to be caught between mounting pressure to constrain plan outlays on the one hand, and continuing consumer demand for comprehensive coverage of physicians' services on the other.

As one result, the "reasonable charge" used by payors—particularly public payors—in determining payment levels no longer reflects the actual charges made by most physicians, because of infrequent updating of fee profiles, percentile cut-offs on customary charge data, and annual percentage caps on prevailing charge increases.

In addition, pressure is increasing on physicians to accept the payor-determined reasonable charge as payment in full (except for allowed deductibles or coinsurance)—i.e., to become "participating physicians." Such pressure is exerted through:

- plan or company contracts which increasingly allow assignment of benefits or make payment only when services are provided by participating physicians;
- beneficiary misunderstanding of "explanation of benefit" letters and resulting patient/physician friction;
- "hold harmless" communications from payors to subscribers, and
- increased consideration nationally of mandatory assignment or fee schedules under Medicare.

As these trends continue, patients will be increasingly restricted to "participating" providers as a condition for insurance coverage. Eventually, physicians' remuneration will be determined solely by third party payors for the great majority, if not all, of the professional services they render—with what the Council believes will be a resulting inevitable mediocrity in the quality of medical care.

Accordingly, the Council believes that the Association should seriously consider recommending that third parties change to an indemnity system of payment for physicians' services, i.e., paying a set amount for services rather than some proportion of the "usual and customary or reasonable" charge. Such a set amount would be determined by the payor itself on the basis of claims experience, public demand, competition and other relevant factors.

Such a change would benefit patients by:

- insuring their continued access to care not through external regulation of fees but through market forces;
- increasing both physicians' and patients' sensitivity to costs and quality of care provided;
- allowing them continued freedom of choice rather than being increasingly restricted to "participating" providers as a condition of coverage, and
- facilitating understanding and comparison of insurance coverages.

For third parties, rate determination would be simpler under an indemnity approach. Payors could establish premiums on the basis of prospective analysis of what the plan pays rather than on a statistical array of physician charges. Administrative costs should be significantly less. For government programs especially it provides an alternative which permits budgetary restraints without further restrictions on type or duration of services covered or massive increases in enrollee copayment.

For physicians this approach could bring improved patient-physician interaction, since neither physician nor patient will have false expectations of the amount of third party payment. Uncoupling third party payment from physicians' charges could act to reduce legislative and political pressure for mandating physician "participation" as a condition of payment, and help preserve for physicians the freedom to charge what they believe to be a fair and equitable fee, subject only to normal and effective market constraints.

The Council believes that a change of this import in Association policy should be considered carefully by this House with their constituents over the next six months. The Council will also continue its study, and will submit recommendations at the 1983 Interim Meeting.

Diagnostic Related Groups (DRG) and Cost Shift to Private Insurers

The DRG Concept

The diagnostic related group concept is one of a number of methods for measuring and categorizing a hospital's patient case mix. DRGs provide a system for sorting patients into diagnostic categories that are theoretically medically similar and that have an anticipated equivalent length of stay. DRGs were originally developed by researchers at Yale University during the 1970s to assist in better targeting utilization review activities on "atypical" patients. The most recent version of the DRG system consists of 467 diagnostic categories that were formulated on the basis of 250,000 discharge abstracts drawn from the Commission on Professional and Hospital Activities' (CPHA) national data base. An additional 1.15 million CPHA discharge records were used to test the current set of DRGs.

Under a reimbursement system based on DRGs, purchasers of hospital care pay a single amount for the treatment of an illness regardless of variations in the specific services provided to patients with the same diagnosis. In theory, such a system links hospital payment directly to the average cost of treating a particular illness. Case mix reimbursement systems in effect rebundle hospital services so that the payment system distinguishes among institutions on the basis of relative complexity of their individual case loads.

Applications of the DRG Concept

Several states, notably Maryland, have utilized DRGs as one element in a broader rate/budget setting process, but only three full-scale systems of DRG-based prospective hospital payment are in operation or have been proposed:

- *The New Jersey System:* DRGs began experimental use as a reimbursement system in New Jersey in 1980. At the present time, all acute care hospitals in that state are being reimbursed for virtually all inpatient services by DRG.
- *TEFRA Per Case Limitations:* Under the TEFRA amendments, the Health Care Financing Administration is imposing total cost per case limitations on payment for inpatient services provided to Medicare patients, with adjustments for each hospital's case mix derived from DRG categories.
- *DHHS Proposal:* In December 1982, the Department of Health and Human Services (HHS) published its plan for the prospective pricing of acute care inpatient services provided to Medicare beneficiaries on the basis of the DRG system, responding to a mandate in TEFRA for development of a prospective pricing plan.

The demonstrated or potential impact on quality, accessibility and costs of hospital care of each of these three applications of DRGs are discussed in the remainder of this report.

The New Jersey DRG System

In its Report N (A-80) the Council noted that the Health Research and Educational Trust of New Jersey (HRET) was engaged in an evaluation of that state's DRG experiment. Under the New Jersey system, *hospital specific* payment rates are negotiated for each DRG, based on the hospital's own cost for treating a particular diagnostic category and the costs of other, similar hospitals in the state in treating that diagnostic category.

Since adoption of Resolution 27 (I-82) the Council has met with a representative of HRET for a discussion of study findings to date (final results have not yet been published). The HRET evaluation has been confined to economic and organizational issues and has not attempted to assess the impact of DRG reimbursement on the quality of care.

In essence, the HRET representative indicated that the evaluation had found some managerial and regulatory benefits resulting from use of the DRG system, but that it had not as yet demonstrated any reduction in the growth of hospital expenditures as a result of DRG-based payments.

The most striking economic effect of New Jersey's DRG experiment has been the improved financial condition of many of the participating hospitals, a result brought about not so much by the use of DRGs as by political decisions accompanying the implementation of the DRG system. Under New Jersey's rate regulation program, the implementation of DRG-based hospital payment was accompanied by a requirement that all third party payors participate in meeting the cost of indigent care; hospitals that provided large amounts of service to the medically indigent thus were given a strong incentive to participate in the voluntary initial phase of DRG payment. In 1979, the year prior to the implementation of the DRG system, 57.7% of those hospitals posted losses from operations; in 1980, only 19.2% had operating losses, an improvement that reflected wider sharing of the cost of servicing indigent patients.

Based on New Jersey's experience to date, a number of other potential impacts of DRG-based per case payment on the delivery system merit study, in the opinion of the Council:

- In the New Jersey approach, alternative delivery systems that seek to achieve savings through reduced length of stay or reduced use of hospital ancillary services may be placed at a competitive disadvantage, since they must pay on the basis of a per case amount derived from the utilization experience of all patients. Savings from shortened length of stay and reduced use

This is AMA Council on Medical Service Report A, submitted to the House of Delegates at its Annual Meeting in June 1983. Past House Action: I-82:35-40, 281; A-80:178-181.

of ancillary services achieved by these alternative systems will thus accrue to the hospital rather than the health maintenance organization or independent practice association.

- In New Jersey, self-pay patients as well as third parties pay for hospital services on the basis of DRGs. There have been claims that such a practice raises a question of equity. For a third party payor, DRG payments averaged over a number of cases are likely to reflect actual services provided to its insured population; for an individual who is bearing the cost of his or her own hospitalization, no such assurance exists.
- New Jersey's DRG-based reimbursement system provides no incentive for hospitals as a group to improve efficiency of service since such improvements might lead to a reassessment and lowering of the overall reimbursement level.
- Increased pressure on the medical staff by hospital management to "tailor" length of stay and utilization of hospital resources to the patient's DRG could be produced by such a system. Such pressures can be particularly strong on the hospital-salaried physicians. The potential impact of such pressures on professional liability exposure and incidence of malpractice claims also merits consideration.
- An incentive to maximize reimbursement by upgrading the severity of admitting diagnoses—so-called "DRG creep"—is also inherent in the system.
- Ongoing administrative and data processing costs as well as initial start-up expenses are major, and may be greater than any cost savings realized—particularly if only part of the hospital's case load is covered, as under the HHS proposal.

TEFRA Per Case Limitations

The TEFRA amendments mandate a payment methodology that differs considerably from the New Jersey model of DRG application. In New Jersey, *hospital specific* rates that apply to all payors are developed for *each DRG;* the rates reflect the hospital's own costs for treating an illness and the costs of other similar hospitals in treating the same illness. TEFRA mandates the development of a case mix index for every acute care hospital participating in the Medicare program. By comparing the case mix index of a particular hospital to a national Medicare case mix index, the government will set an *average cost per Medicare case* for each hospital irrespective of the individual patient's DRG. In other words, this comparison of an individual hospital's case mix to the national Medicare case mix index will result in an "adjustment factor" to the national average cost per Medicare case. The resulting adjusted cost will be the individual hospital's cost per case limit. In theory, each hospital's cost reflects the complexity of that institution's overall case load. The limitations imposed by a hospital's cost-per-case cap are a limit on *overall Medicare revenue* to the institution, and not on payment for individual patients. The case mix index applies only to Medicare-financed hospitalizations.

The Medicare case mix index has been in effect too short a time to allow thorough evaluation of the effects of its operation. The Council is, however, concerned over both the methodology by which the index was developed, and the effect that the fiscal limitations imposed by the case mix index may have on the quality and accessibility of hospital care as well as on the financial viability of a number of hospitals. With regard to development methodology, both the national Medicare index and the case mix indices for individual hospitals were calculated using 1980 data from HCFA's MEDPAR file, a 20% sampling of Medicare bills that also contains diagnostic and procedural information. The nature of the MEDPAR data raises substantial concern over the accuracy of any DRG index based on it:

- The information in the MEDPAR file does not correspond to the information that is necessary for the development of DRGs. For example, four elements used in assigning patients to a DRG are the primary and secondary diagnoses, and for surgical admissions, primary and secondary procedures. The MEDPAR file only notes the presence or absence of a secondary diagnosis or surgical procedure, but does not identify the secondary diagnosis or procedure itself. Also, some intermediaries only transmit a single diagnosis.
- It is questionable whether data derived from billing forms can be used in the accurate assignment of DRGs. For example, Medicare's requirement that hospital bills be submitted to the intermediary in a timely fashion means that in many instances, the principal and secondary diagnoses and surgical procedures on the billing form may not accurately reflect the patient's discharge abstract.

HCFA argues that the errors generated through the use of MEDPAR data will tend to counterbalance one another, i.e., to lessen the cost assigned to relatively complex DRGs but also to increase the cost assigned to relatively simple DRGs. But the averaging process applies to *Medicare patients as a whole*, not to individual hospitals, and the Council is concerned that hospitals treating disproportionately large numbers of complex DRGs may be severely penalized while hospitals treating disproportionately large numbers of simple DRGs may be inappropriately rewarded.

The HCFA case mix index also raises important questions related to accessibility and quality of care, in the Council's view:

- HCFA assumes that a hospital's case mix does not change significantly from year to year, so that the case mix index calculated initially for each hospital will continue to apply in future years with alterations allowed only on narrowly defined grounds. Hospitals may, therefore, attempt to restrict over time the availability of treatment for more complex illnesses as a means of maintaining financial stability.
- DRG cost weights as used in HCFA's Medicare case mix index represent only an average cost for treating patients at a particular time in the development of medical science. The TEFRA amendments contain no assurance that increase in the case mix index limits—presently set at the rate of increase in the hospital market basket plus 1%—will be sufficient to cover the cost of new technologies or to accommodate changes in practice patterns which enhance the quality of care.
- To the extent that hospitals seek to maintain the quality and accessibility of care for Medicare patients, they may be forced over time to engage in "cost shifting" in order to regain from the private sector losses

incurred in the treatment of Medicare patients. Unlike the New Jersey System which covers all payors and requires approximately equal payment from each of them, TEFRA and the new DHHS proposal as well set payments only for Medicare patients.

HHS Proposal

Under the HHS proposal, a *national price*, based initially on Medicare's historical costs, would be developed for *each of 356 DRGs*. The prices would be adjusted locally to reflect variation in local labor costs. Education and capital costs would be reimbursed separately on a "pass through" basis. In theory, because hospitals would receive a fixed price set in advance by diagnosis for each Medicare case they treat, they would have an incentive to control costs in order to realize a "profit" or, at least, to avoid a loss.

The HHS proposal thus differs from both the TEFRA amendments and the New Jersey experiment in its use of DRGs as the basis for establishing a national price *for each DRG*. In contrast to the New Jersey system, which pays a different amount for *each* DRG in *each* hospital, and the TEFRA provisions, which pay the same amount for every Medicare discharge in a given hospital (based on that hospital's case mix), the DHHS proposal will use Medicare's historical cost data to develop a *national* price for *each* DRG that applies to *all* hospitals caring for Medicare patients.

In February 1983, the Association testified on the HHS proposal before the Subcommittee on Health of the Senate Finance Committee and the Subcommittee on Health and Environment of the House Committee on Energy and Commerce. This testimony emphasized the need for further experimentation on a limited scale with alternative forms of prospective health care facility payment before general implementation of any particular system is attempted. The testimony stressed that the HHS proposal leaves the following important questions unanswered, among others:

- The pricing methodology in effect eradicates distinctions among different hospitals by setting a single price for each DRG. Because DRGs contain no measure of the severity of illness, the elimination of payment differentials may result in a reduction in the quality of care and of access to care for more severely ill patients.
- Similarly, the proposal directly attempts to eliminate regional differences in inpatient utilization patterns although there is as yet no firm evidence as to whether such regional differences are medically justified, or as to which level of utilization is most appropriate.
- The proposal fails to specify the methodology for annual adjustment of the DRG rates, leaving the question broadly to the discretion of the Secretary. Under such broad discretionary power, the potential exists for the Secretary to dictate standards of care for Medicare beneficiaries by setting DRG rates at a level that fails to recognize changes and advances in medical practice.
- The DRG rates will be set initially on the basis of MEDPAR file data although a base year for calculation of the rates is not specified. Limitations in the quality of the data will, as previously described, place limitations on the accuracy of DRG prices.
- More explicitly than the TEFRA amendments, the HHS proposal is a means of controlling government expenditures for the care of the elderly. It is likely that, if implemented, prospective pricing applied only to Medicare patients will stimulate considerable cost shifting to the private sector.
- Prospective pricing represents a use of DRGs that differs considerably from the way in which other reimbursement systems use them. Thus the HHS proposal must be seen as an untested price setting method that the federal government is seeking to implement nationally without any trial period.

Notwithstanding the above concerns of the Association and those expressed by other groups as to the readiness of any particular prospective pricing system for national implementation, a final version of a Medicare hospital payment program based on DRGs was approved by both Houses of Congress on March 24 and sent to the President. The prospective pricing provisions were passed as a part of H.R. 1900, the Social Security Act Amendments of 1983. The measure also contemplates future consideration of the possible extension of DRGs to physician charges for inpatient hospital services if studies mandated under the bill show that such an extension is "advisable and feasible."

As originally proposed by the administration, the system would have established a single national payment rate for each of 467 DRGs. Payment to the hospital would be payment in full with beneficiaries only responsible for deductibles and coinsurance.

Under the bill approved by Congress:

- DRG payments would be phased in over three years, beginning with the hospital's first cost reporting period after Oct. 1, 1983. In the first year, 25% of the payment would be based on DRG rates and 75% on the hospital's cost base. The percentage of the payment based on DRGs would gradually increase until it reached 100% in the fourth year.
- In the first year, the DRG portion of the payment would be a regional rate. A rural and an urban rate would be calculated for each of nine regions. In the second and third years, the DRG portion would be a blend of national and regional rates and by the fourth year, the 18 regional rates would give way to two national rates—one urban, one rural.
- Rates in 1984 and 1985 would be adjusted by the market basket index of hospital costs plus 1%, but they would be reduced to the extent this resulted in payments exceeding those that would have applied under the Tax Equity and Fiscal Responsibility Act targets.
- Beginning in 1986, the increase factor would be determined by the Secretary of HHS and reviewed by a 15-member Commission appointed by the Office of Technology Assessment. The Commission is to include representatives of a wide range of groups, including physicians. Based on its evaluation of new practices, including new technology and treatments, the Commission is to recommend changes in the recalibration of the DRG classifications.
- Direct medical education expenses would continue to be paid on a cost basis and the current Section 223 adjustment for indirect medical education expenses would be doubled in the DRG system.
- Capital costs incurred before the system takes ef-

fect will continue to be reimbursed on a reasonable cost basis until Oct. 1, 1986. New capital costs may or may not be paid on a reasonable cost basis. States would be required to have Section 1122 review systems, and Medicare reimbursement for new capital costs would be conditioned on 1122 approval. The maximum threshold the state may use for requiring an 1122 review is increased from $100,000 to $600,000.

- Return on equity for proprietary hospitals would be reduced.
- Certain types of institutions would be exempt from the DRG system.
- From now until Oct. 1, 1983, hospitals are required to contract with a PRO to monitor utilization if there is a PRO in the area. After Oct. 1, the hospital is required to contract with a PRO and cannot be paid by Medicare if a PRO review is not performed. Intermediaries will be allowed to participate in the PRO program by Oct. 1, 1984 at the latest.
- State payment systems covering all payors would be encouraged through waivers if the state system would cost Medicare no more than the federal DRG system.
- HHS is to report in 1985 on the "advisability and feasibility" of applying DRGs to physician charges for hospital services and of legislation to effect this change.

In the opinion of the Council, the application of these untested financing mechanisms to virtually all Medicare hospitalizations is fraught with potential dangers to the quality and accessibility of care for all patients. The Council is particularly concerned as to:

- whether DRGs have demonstrated their effectiveness as a methodology for hospital payment, much less payment for physicians' services;
- how a DRG-based payment system will affect the delivery of patient care, particularly its impact on quality and accessibility of care;
- whether the new program will shift costs of the Medicare program to the private sector; and
- whether the initial and ongoing administration costs incurred by all hospitals in utilizing DRGs will be greater than the cost savings anticipated, since only 25% of the average hospital case load is Medicare beneficiaries.

On the basis of its review of this subject, the Council remains convinced that current Association policy calling for controlled experimentation with various reimbursement systems and with various case mix methodologies prior to national implementation of any system continues to be appropriate. Nonetheless, a DRG-based prospective hospital pricing system for Medicare patients is now the law of the land. Because of the phase-in nature of the program, it is unlikely that major fiscal impacts will be felt immediately. However, hospital management will almost assuredly be seeking *now* to reduce length of stay and use of ancillary services to conform to anticipated DRG payment rates. Hospital medical staffs will need to monitor utilization patterns even more carefully if detrimental impacts on the quality and accessibility of care are to be minimized; and may find themselves in new and evolving relationships with hospital administration.

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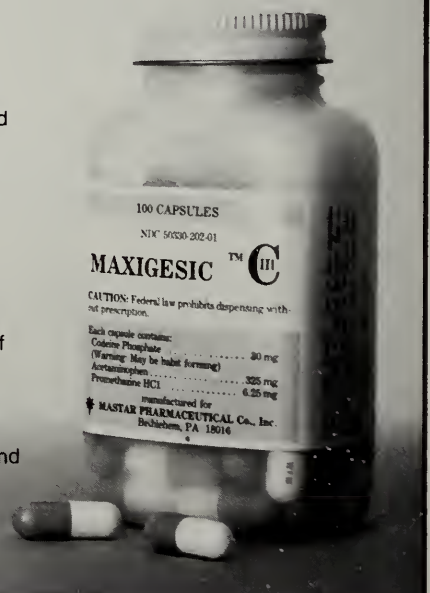
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Special Item

Sudden Infant Death Syndrome

KATHRYN M. EDWARDS, M.D.

Recently Gov. Lamar Alexander signed legislation (Public Charter 390 effective July 1, 1983) providing statewide autopsy services for victims of sudden infant death syndrome (SIDS) and educational and counseling resources for their families. It is therefore timely that we review what facts are known about SIDS, whether laboratory studies can predict infants at risk, and how families can be aided when such a death occurs.

What is SIDS?

SIDS was first defined in 1969 as the sudden and unexpected death of an apparently healthy infant whose death remained unexplained even after a thorough postmortem examination.[1] Although this definition was only recently assigned, SIDS dates back to Biblical times (I Kings 3:19) "and this woman's child died in the night because she overlaid it." The incidence of SIDS, two to three cases per thousand live births, is relatively constant throughout the world and has not changed over the years. Statistically it is more common in male, low birth weight babies, where there are multiple births, and in families of low socioeconomic status.[1] The disease is uncommon before 2 weeks and after 6 months of age, with the peak incidence occurring between 2 and 4 months. Most SIDS deaths occur between the months of November and March. The risk is higher in infants of young mothers, smoking mothers, and mothers who are addicted to narcotics. SIDS occurs in both breast-fed and bottle-fed babies. Despite these statistical trends discovered in large epidemiologic studies, the trends have *no* value in predicting which individual infants will become SIDS victims.[1] Children from all socioeconomic, racial, and professional groups die of SIDS. No infant is immune.

A presumptive diagnosis of SIDS can be made by a physician when an apparently healthy infant, who may have a mild upper respiratory infection, is found dead after a sleeping period and in whom a gross examination shows no obvious signs of a life-threatening condition. Although 85% of all babies with the above history will be proven to have SIDS on autopsy, 10% to 15% will be shown to have a lethal condition other than SIDS, i.e., septicemia, intracranial hemorrhage, myocarditis,[2] which stresses the importance of an appropriate autopsy, now attainable through the medical examiner system for all victims in this state.

Because of the disarray of the death scene and the sudden nature of the death, misconceptions may arise as to what actually caused the death.[2] The infant is sometimes found squeezed into the corner of the crib with a blanket covering the head, leading parents to incorrectly conclude that the child has suffocated. Blood-tinged mucous originating in the lungs is found in the nose or mouth of half of the cases, leading to the erroneous conclusion that the infant has suffered an internal hemorrhage. *Livor mortis* may be mistaken for bruises. Most parents or caregivers are too frightened to ask about the apparent grotesqueness of the death scene and should be reassured that their baby did not suffer and that the bodily changes occurred after death. An appropriate autopsy can dispel many of the concerns that the SIDS baby died from suffocation, aspiration, accidental injury, neglect, or abuse.

The postmortem findings of victims of SIDS are multiple and characteristic, but no single

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finding is universally present in all infants.[1] External examination reveals that SIDS victims are in a normal state of nutrition and hydration. Internally, 90% of the infants have intrathoracic petechiae, indicating a high negative intrathoracic pressure at the time of death. Other common findings include pulmonary congestion and edema, as well as minor inflammatory infiltrates in the lung and upper airways, findings inadequate to cause death. The presence of milk or food particles in the trachea of some infants should not be interpreted as evidence of death by aspiration, since neurologically handicapped patients dying of aspiration have a clearly different pathologic picture. Recently, postmortem studies of some SIDS victims have provided suggestive evidence that death is preceded by chronic hypoxia. Naeye[3] has described increased muscularity of pulmonary arteries, increased right ventricular muscle mass, astroglial cell proliferation in the brain stem, retention of periadrenal brown fat, abnormal cell volume in the carotid body, and increased extramedullary erythropoiesis. These findings suggest that chronic hypoxia may have been present prior to the terminal event in some of the SIDS victims, and if confirmed by other investigators, that some SIDS babies are victims of prior oxygen deprivation, thereby raising the hope that eventually these infants can be discovered prior to the fatal event. Further research in this area is needed.

Can Laboratory Studies Predict Infants at Risk?

In 1972, Steinschneider[4] described five infants with a history of recurrent apnea, two of whom subsequently died of autopsy-confirmed SIDS. His report and several similar ones began to question whether infants who had experienced an episode of apnea during sleep and who required vigorous stimulation or mouth-to-mouth resuscitation to restore breathing were "near-miss" SIDS infants, and whether extensive studies in these infants would answer key questions about the etiology of SIDS. These infants have been the subject of extensive investigation in the past five years, much of it coming from Drs. Shannon and Kelley,[5] who reported in 1977 that ventilatory responses to inspired CO_2 were depressed in "near-miss infants." Two subsequent studies by other investigators, however, did not show a clear enough distinction between "near-miss" and control groups to be able to use the ventilatory responses to inspired CO_2 as predictive of infants at risk for SIDS.[6,7] Likewise, ventilatory responses to hypoxia have been unable to separate infants at risk.[6]

Finally, breathing patterns have been extensively examined in "near-miss" infants and control groups. Some studies report differences in infants at risk, while others do not.[8] Recently, prospective studies of breathing patterns have been conducted in large groups of infants representative of the population at large.[9,10] Southall et al recorded breathing patterns over 24-hour periods in 6,914 full-term and 2,337 premature infants just prior to hospital discharge. Sudden death subsequently occurred in 29 of these infants, none of whom had apneic episodes lasting longer than 20 seconds during the testing period. No deaths occurred among the infants in whom prolonged apnea had been documented. To quote a recent editorial in the *New England Journal of Medicine*, "Although this type of analysis has become popular in the U.S. as a means of screening infants for risk of SIDS, its use must be questioned on the basis of these results."[8]

For families who have been subjected to the trauma of a previous SIDS death, the risk of death in subsequent siblings is of great concern. Several epidemiologic studies suggest that the risk of SIDS in subsequent children is increased fivefold to tenfold,[1] but a recent report of the combined experience of research groups evaluating subsequent siblings does not support an increased risk in this group.[11]

How Can Families Be Aided When a Death Occurs?

Parents who have lost a child to SIDS are unique because the event is sudden and totally unexpected and because a sense of mystery surrounds it. With many diseases, a family has the opportunity to prepare and begin the grieving process before death, but with SIDS the entire grieving process must occur after death.[2] Physicians can play an important role in alleviating prolonged grief and guilt reactions among survivors of the victim. The following elements of appropriate SIDS management are now available throughout the state:

1. Autopsies (to be arranged by the county medical examiner) should be performed by qualified pathologists on all children who die suddenly and unexpectedly.
2. The appropriate term "sudden infant death syndrome" should be listed on the death certificate when this diagnosis is confirmed.

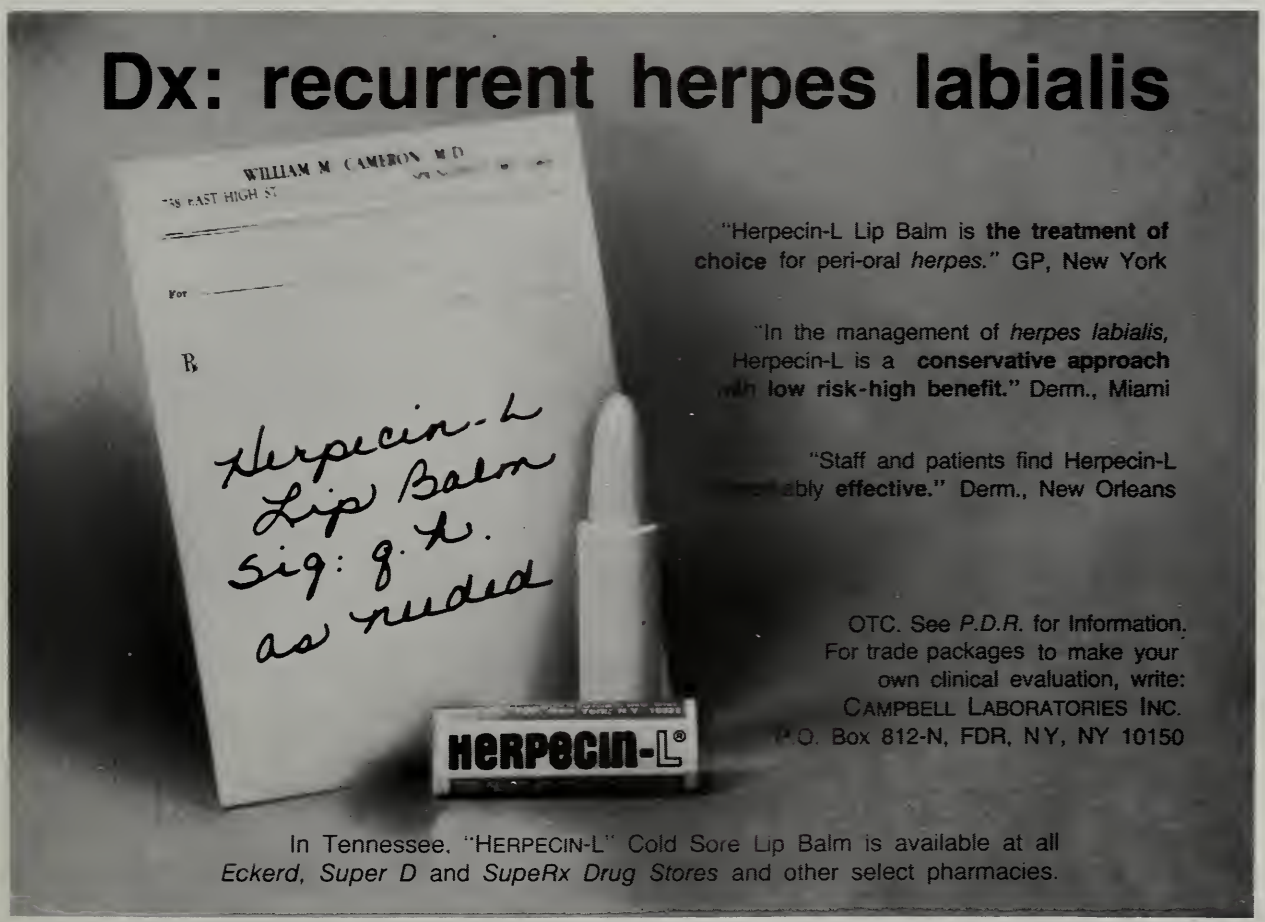
The terms suffocation, aspiration, and pneumonia inaccurately applied may lead to parental guilt.

3. Families should be promptly notified by telephone or letter of autopsy results.
4. Follow-up counseling and information about SIDS and characteristic grief reactions should be provided by a knowledgeable health professional. The three most important points for these individuals to convey are that the baby died of a definite disease entity (SIDS), that SIDS cannot be predicted or prevented, and that the parents or caregivers are in no way responsible for the death.

For further information about the statewide SIDS program refer to the "Health and Environment Report" in this issue.

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The Tennessee Sudden Infant Death Syndrome Program

MILLICENT STUNTZ, R.N., M.P.H. and MARY L. MICHAL, M.D.

Sudden infant death syndrome (SIDS) is of special interest to all physicians who care for infants and children. The physician, as family friend, is often the first person called when the tragedy is discovered. To help the physicians in the state keep abreast of developments, we present the following information regarding the new program in Tennessee Department of Health and Environment.

T.C.A. 68-1-1101, Chapter 53, a legislative act relative to Sudden Infant Death Syndrome (SIDS), was passed in May, 1983, to take effect July 1, 1988. This bill defines SIDS as the sudden and unexpected death of an ostensibly healthy

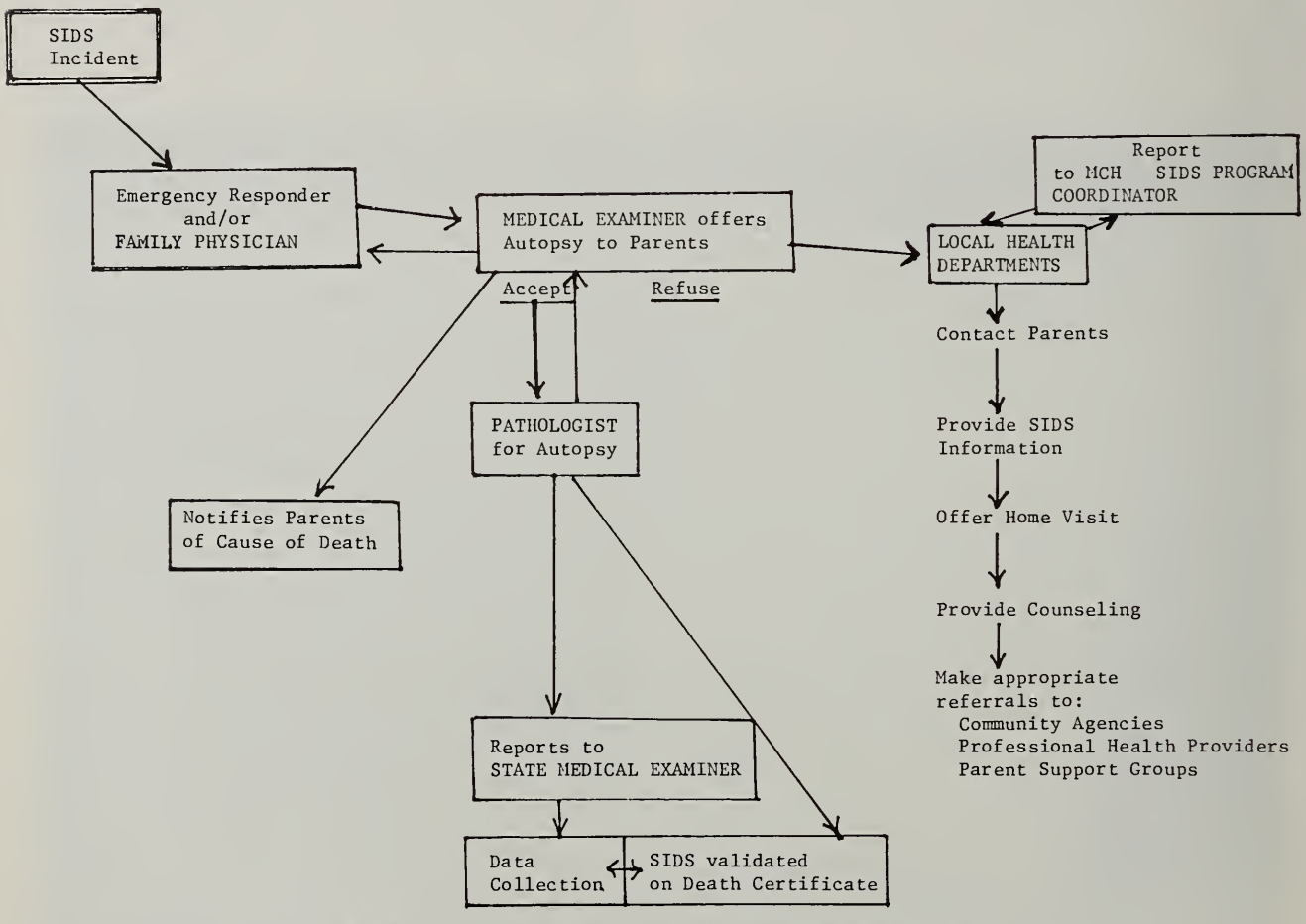


Figure 1. Sudden Infant Death Syndrome—Case Management Outline.

From the Tennessee Department of Health and Environment, Nashville.

child under 3 years of age without known or apparent cause, and which remains unexplained after a postmortem examination.

The law will be implemented statewide through the Department of Health and Environment, the Maternal and Child Health Division, the State Medical Examiner System, and the Center for Health Statistics. Provisions of the SIDS Program will focus on five major components (see Fig. 1, a flow-sheet for case management):

1. *Case finding through identification of SIDS incidents.* Each suspected case of SIDS will be reported to the local medical examiner.

2. *Corroboration of diagnosis.* The local medical examiner will offer the parents an autopsy of the infant to validate the diagnosis of SIDS. Parents will be encouraged to avail themselves of this service to determine whether their baby died from an identifiable condition or from SIDS. Although by signing a form provided by the medical examiner parents may elect not to have an autopsy performed, experience with such cases has shown that parents who refuse later regret not knowing the cause of their child's death. The medical examiner will arrange the postmortem examination to be performed by an approved pathologist. Preliminary reports of the cause of death will be given to the medical examiner or private physician, who will in turn inform the parents within 24 to 48 hours.

3. *Education of health care professionals and the public.* Special meetings and training sessions are offered by the health departments to interested persons to alert them to the current knowledge and most recent information about SIDS.

4. *Provision of counseling support and referral for parents and families at their request.* The sudden and unexpected death of an apparently thriving infant is a devastating and shocking tragedy to the victim's family. Since families, and particularly mothers, may automatically interpret the death as their fault, prolonged and abnormal grief reactions are not unusual. Siblings, members of the extended family, and friends suffer from self-imposed guilt reactions, which may result in a variety of family dysfunctions. There are at present *no* proven means of prevention, nor is there a specific known cause for SIDS, but we *can* deal effectively with the family to reduce initial anguish and protracted guilt reactions. The family should be given SIDS information immediately, and be informed that they are not responsible for the sudden death of their infant. If this can be done compassionately by the first responders and other support personnel, grief can be dealt with more appropriately. The state and local health departments will coordinate these services.

5. *Systematic collection of information* concerning the incidence, distribution and characteristics of SIDS statewide to identify perhaps over time a profile of families and infants at risk for SIDS. The data collection will be directed by the Center for Health Statistics.

For further information contact Millicent Stuntz, R.N., M.P.H., Coordinator Statewide SIDS Program, State Office Building, Ben Allen Road, Nashville, TN 37216; telephone (615) 741-7353.

Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism, other drug addiction, psychiatric disorders or senility. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

HELP US TO HELP

Call the TMA Impaired Physician Program (615) 327-2711; outside Nashville call collect. Phone service available around the clock.

Medical Grand Rounds

Rocky Mountain Spotted Fever

CHARLES E. KOSSMANN, M.D., Editor

PAUL GERLACH, M.D.
(Resident Physician)

A 23-year-old black man complained of frontal headache beginning four days earlier, followed by fever, shaking chills, and pains in the wrists and ankles. On the second day of the illness, which occurred in the fall of 1982, an erythematous rash appeared on the arms, legs, palms and soles. He gave no history of intravenous drug abuse or exposure to patients with hepatitis, but did report that two weeks earlier he picked a number of ticks off his dog but got none of them on himself.

His physician found that he had a temperature of 103°F with a pulse rate of 88/min, a blood pressure of 130/90 mm Hg, and respirations of 20/min. Pulmonary, cardiac and abdominal examinations were negative. His wrists and ankles were tender but not erythematous, swollen, or hydropic, and there were 3-mm macules on the skin of the hands, palms, legs and soles.

The white blood cell count was 16,000/cu mm, with 1% bands and 79% segmented neutrophils, 10% lymphocytes, and 9% mononuclear cells. The hematocrit was 49% and the mean corpuscular volume 88 μl. The urine showed a trace of protein, 2 to 3 white cells per HPF, and red blood cells too numerous to count. The ESR was 70 mm/hr. Serum electrolytes were within normal limits. The antistreptolysin-0 titer, the febrile agglutinins, and the leptospiral titers were negative, as were tests for rheumatoid factor, fluorescent antinuclear antibody, VDRL, reaction to purified protein derivative, and hepatitis B surface antigen and antibody. Two blood cultures were sterile.

The patient was begun on a course of tetracycline, producing rapid resolution of symptoms. The repeat urinalysis in three days post-treatment was within normal limits. Febrile agglutinins at two weeks were positive for OX-19 in a dilution of 1:300 and for OX-2 in a dilution of 1:150.

The final diagnosis was Rocky Mountain spotted fever.

MACK A. LAND, M.D.
(Instructor in Medicine)

We have just heard the case history of one of the most fascinating and challenging diseases seen by physicians. It is truly one of the most romantic infectious diseases, not in the sexually transmitted sense except maybe for the tick that carries it, but rather in the poetic sense. Rocky Mountain spotted fever is caused by rickettsiae, which are obligate intracellular bacterial parasites that occupy both the cytoplasm and the nucleus of the host cells.

Today we want to paint several pictures of what you will see clinically with Rocky Mountain spotted fever, because its manifestations are protean in nature and can range from the moderately severe case described today to both a milder form and a fulminating systemic vasulitis.

The rickettesial diseases prevalent in the United States at present are Rocky Mountain spotted fever, caused by *Rickettsia rickettsii*, whose vector is the tick; rickettsial pox, caused by *R. akari*, whose vector is the rodent mite; and murine or endemic typhus, caused by *R. typhi*, whose vector is the rat flea. The last is endemic to this area and the Southeast generally, and figures highly in the differential diagnosis of Rocky Mountain spotted fever. Epidemic typhus, also named Brill-Zinsser disease or recrudescent epidemic typhus, was seen frequently in prison camps in Europe during World War II. In the last year, the organism which causes it, *R. prowazeki,* has been recovered from flying squirrels in both Georgia and Maryland, and there have been one or two case reports of the disease occurring in patients in the continental United States without a history of previous infection. Q fever, caused by *Coxiella burnetti*, is usually acquired by inhalation and can often be recognized by its chronicity.

Incidence

But what has happened to Rocky Mountain spotted fever over the years? It was first noted in the Bitter Root Valley on the Idaho-Montana border by an army surgeon, Dr. Wood, who in the 1890s or early 1900s reported eight cases[1] accumulated from physicians in Idaho and Montana. It was for Dr. Howard Taylor Ricketts in

From the Department of Medicine, University of Tennessee, 951 Court Ave., Memphis, TN 38163.
Presented Dec. 1, 1982.

1906 to work out the specific epidemiology and etiology of this disease and to give us some understanding of its pathogenesis. Even before this however, the disease was well known to the Indians of the area. In the spring of the year, as temperatures rose, and the ticks became active, the braves of the tribe did not go into the mountains to gather food but sent the women instead, who were exposed to the ticks and developed fever. Because the disease was first described in patients living in the Rocky Mountain area it became known as Rocky Mountain spotted fever (RMSF). Table 1 shows the incidence of reported cases per 100,000 of population from 1955 to 1980 (Fig. 1). There was a threefold increase in cases from 16 per 100,000 up to as high as 52 cases per 100,000 of population per year in that quarter-century.

Several reasons have been espoused for the apparent increase. One is that newer diagnostic aids are better. Another is that we have become a population that enjoys and participates more in outdoor recreation, with greater exposure to the vectors. Yet another is that more people are keeping pet dogs indoors, along with the ticks they acquire outdoors.

The case fatality rate for RMSF is shown in Fig. 2. Over the past decade, deaths have increased but the true case fatality rate and ratio have come down slightly from some 12 cases per 100,000 to 6 to 7 per 100,000 of population per year.

The map (Fig. 3) shows where RMSF occurred toward the end of the Great Depression of the 1930s—915 in the Rocky Mountain area and 245 on the Pacific coast. The incidence at that time was low in the South Central United States, especially in the Mid-South. In the period 1970-1974 (Fig. 4) the disease seemed to have moved southeastward, with the greatest incidence in the South Atlantic and South Central areas of the country. Only 45 cases had occurred in the Rocky Mountain areas and 21 cases on the Pacific coast, compared to 429 cases in Kentucky, Tennessee, Mississippi and Alabama, and 1,423 cases in the South Atlantic states from Maryland to Florida. It really has become a disease of the Southeast, and you might even say that it now follows a north-south separation by the old western division of the Mason-Dixon line (Oklahoma was considered a southern state during the Civil War). Because of its relative rarity now in the Rocky Mountain area it has been suggested that the name be changed to tick-born typhus, or Appalachian-Rocky Mountain spotted fever.

Table 1 shows the incidence in the ten states with the greatest number of cases from 1975 to 1978. Tennessee had the fourth highest frequency in this group. The high incidence in North Carolina, Virginia, and Oklahoma was somewhat of a surprise to me. Most of the cases we see at the University of Tennessee are from western Tennessee, Arkansas and Mississippi.

The vector of RMSF is the tick. The tick is infected by feeding on blood. It can transmit the

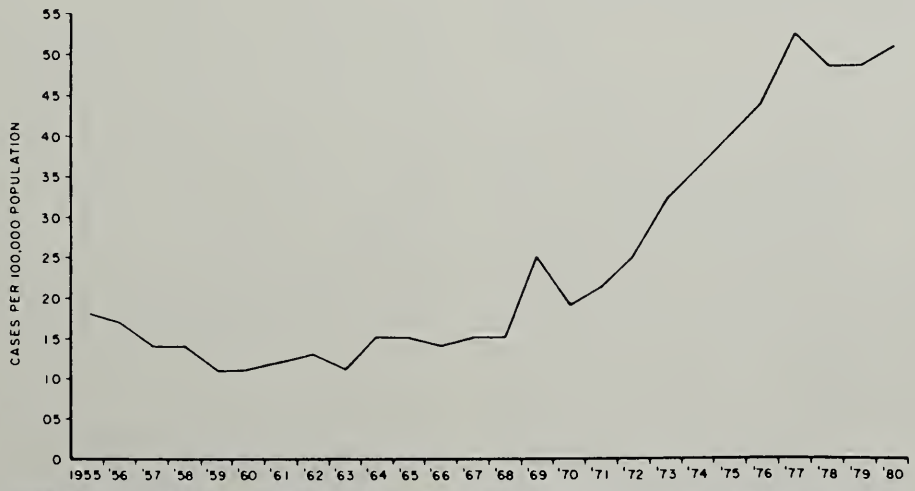


Figure 1. Rocky Mountain spotted fever, reported cases per 100,000, by year, United States, 1955-1980 (1980 total is provisional).

rickettsia through its germ cells to its progency or to a bitten host. Man is really an incidental host and is not a necessary intermediary for the survival of the organism. Although with its bite the tick injects the rickettsia into the bloodstream, there are other ways the disease can be transmitted. If you are unfortunate enough to get infected feces of the tick on broken skin and if you scratch or rub that area, you can infect yourself. Our patient today did not know of a tick bite, but did admit pulling ticks off his dog. Laboratory acquisition by working with rickettsia also may occur.

The vectors are basically two: the wood tick and the dog tick, the latter especially in the southeastern United States. The Lone Star tick, found in Texas, and the rabbit tick can also transmit RMSF. With rickettsemia the organisms settle in the endothelium of small and medium sized blood vessels and cause a vasculitis with thrombosis and organ infarction to account for some of the clinical manifestations.

Clinical Manifestations

As in the patient presented, most cases begin with fever. Severe frontal or retro-orbital headache occurs in 53% to 92%, and myalgias, commonly in the back and in the calf muscles, are severe and incapacitating. Muscles involved are so tender at times as to make the weight of a bed sheet intolerable, or they can be more like the flu-type myalgia. The triad of fever, headache, and myalgias with an accompanying rash is the classical presentation of this disease. About 75% of the patients will give a history of tick exposure, with about half of those giving a story of a tick bite. The disease tends to occur in the warm season, maximally between April and October. In Tennessee there are usually two peaks of incidence, one early in the spring around May, and a later one in July and August, but the disease does not occur exclusively in those periods, having been known to occur during the winter months as well, especially in households where dogs are kept indoors, and particularly in the

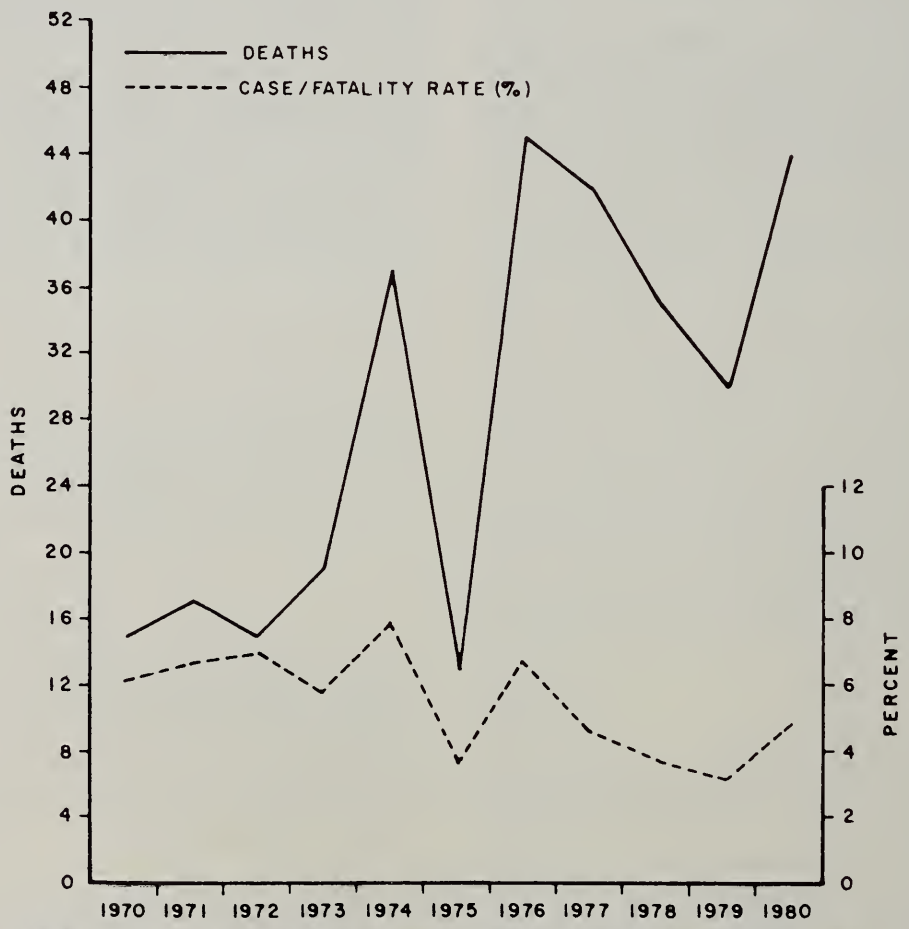


Figure 2. Rocky Mountain spotted fever, death-to-case ratio, United States, 1970-1980 (based on case-report form data; 1980 figure is preliminary).

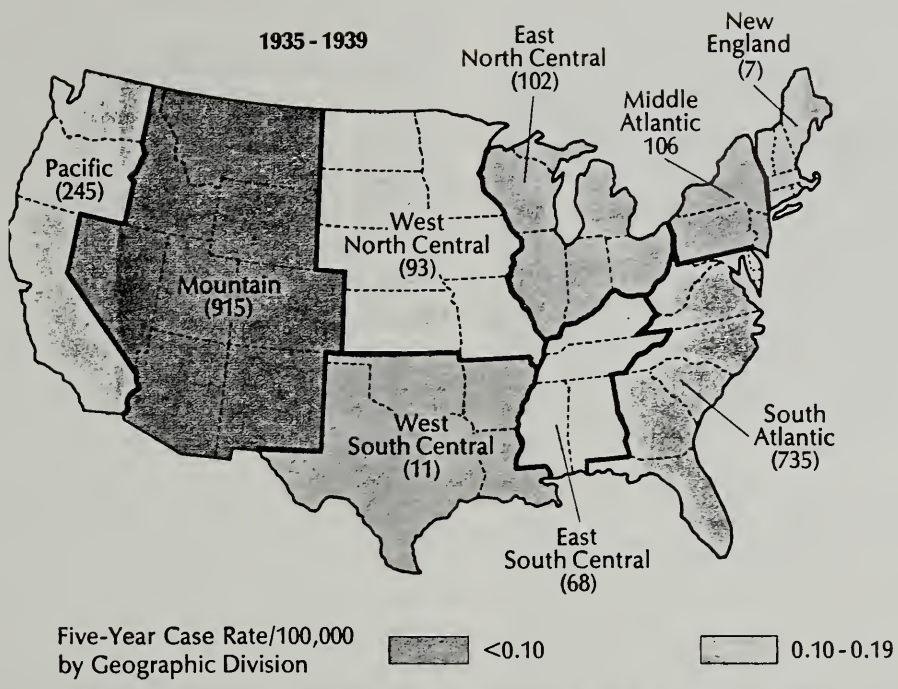


Figure 3. Distribution of cases of Rocky Mountain spotted fever in 1930s (from Riley[1]).

Southeast, where ticks may have a longer life span in the relatively mild winter climate.

Objective Findings

Frequently there will be a conjunctivitis, and at least one case of nongranulomatous anterior uveitis has been reported. There may be retinal hemorrhages, edema, and even papilledema. Microinfarctions may be seen in the oral mucosa, and sore throats occur but without prominent cervical adenopathy. The muscles of the neck may be particularly tender. Further, meningismus with nuchal rigidity may account for the sensitivity. Pulmonary signs are not uncommon in patients who have either pneumonitis or infiltrates on roentgenography. There may be increased pulmonary fluid, and the spectrum from small pleural effusion to noncardiac pulmonary edema or acute respiratory distress syndrome (ARDS) may be encountered. The cause of the pulmonary edema, if it occurs, is difficult to determine, because the rickettsia can cause a carditis, up to 17% to 18% of patients with RMSF showing electrocardiographic abnormalities particularly of the final ventricular deflections. There may also be cardiomegaly, and we have seen cardiac pulmonary edema in several cases this year. In 1981[2] the University of Tennessee's Departments of Pediatrics and Pathology reported 14 cases with myocardial involvement. Nine of those died and at necropsy displayed myocardial microinfarcts and evidence of mycarditis. The other five had what was interpreted clinically to be pulmonary edema, the result of cardiac failure rather than vasculitis of the pulmonary vessels with leakage of fluid into the alveoli.

Nausea or vomiting occurs in about 50% to 60%, and diarrhea with fever may suggest an infectious origin. Abdominal pain may be such a prominent symptom in some one-third of the patients that they may, on occasion, be taken to surgery for an acute abdomen with abdominal rigidity and rebound tenderness mimicking acute appendicitis. The signs and symptoms are ascribable to the vasculitis in the small intra-abdominal vessels.

A small percentage have hepatomegaly and splenomegaly, and less than 10% have clinical jaundice. Of those with hepatomegaly there may be elevation of the transaminases, clinically interpreted as a mild hepatitis.

Neurological complications are particularly prominent. We mentioned headache as a prominent feature; Dr. Bisno has emphasized this in his article.[3] About 23% will have severe neurologic complications; one-fifth will have stupor and delirium, and one-tenth coma. Seizures and focal neurological signs may be seen. Papilledema is rare, but when present it is not accompanied by increased intracranial pressure. Traditionally, it

has been stated that the spinal fluid pressure is normal in RMSF, but there is evidence that this is not always true. In a somewhat skewed series reported from the North Carolina Memorial Hospital, 63 of probably the sickest patients had a lumbar puncture, and elevated pressure in the subarachnoid space was encountered in about 14%. Protein was elevated often to the range of 50 to 99 mg/dl but occasionally was as high as 300 mg/dl. Hypoglycorrhacia was unusual, less than 10% of the patients having a CSF glucose of less than 50 mg/dl. Pleocytosis was found in 40% to 45% of patients but more than 100 white cells were found in only 7 of the 63; the range was 10 to 99 in the others that showed cells. The white cells were usually lymphocytes, but in half the patients they were polymorphonuclear, suggesting parameningeal foci of infection or early meningitis.

Neurological residua may follow RMSF. In Birmingham,[4] patients with severe RMSF and coma had residual effects such as intellectual impairment and learning disabilities, and some had subjective behavioral abnormalities following recovery. It is difficult to differentiate the cause as cerebral vasculitis or inadequacy of ventilation with respirators during coma, or other such factors.

I want to mention two other laboratory findings: the complete blood count and the serum sodium. Today's patient did not have a particularly characteristic blood count of RMSF. Usually they tend to have a normal white count, less than 10,000/cu mm, although our patient had 16,000; such levels will be found in about 20% of the patients. Despite the normal absolute number, there is a shift to the left, with an increase in band forms. About two-thirds of the patients will have more than 10 band forms per cubic millimeter, and 10% to 20% will have more than 50%. An item of interest is the thrombocytopenia.[5] Approximately half the patients will have platelet counts less than 150,000/cu mm, and some 20% will have fewer than 50,000 platelets per cubic millimeter. Also as the disease and accompanying vasculitis progresses, the clinical picture will simulate disseminated intravascular coagulation (DIC). Heparin therapy is not required in most instances. With successful treatment of the underlying RMSF, hematologic abnormalities subside.

Hyponatremia with serum sodium values near 120 mEq/liter is usually a prominent feature of this disease, although our patient today did not have it. When present, it is believed to be on the basis of the syndrome of inappropriate antidiuretic hormone (SIADH), but its pathogenesis is not completely understood.

The Rash

The rash of RMSF is a prominent feature which helps to make the diagnosis, occurring in

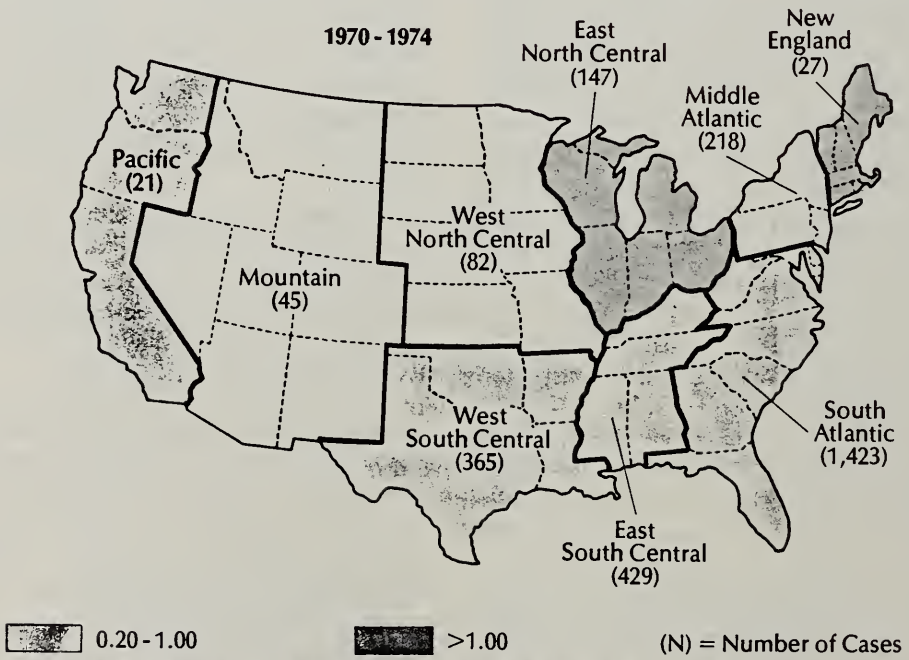


Figure 4. Distribution of cases of Rocky Mountain spotted fever in 1970s (from Riley[1]).

TABLE 1

INCIDENCE OF ROCKY MOUNTAIN SPOTTED FEVER IN THE TEN STATES WITH HIGHEST INCIDENCE PER 100,000 POPULATION (1975-1978)

	By Case Report Form	By State Report to MMWR
North Carolina	2.73	3.43
Oklahoma	2.62	2.88
Virginia	2.43	2.46
Tennessee	1.73	2.22
Maryland	0.95	1.43
Kentucky	0.88	1.01
Georgia	0.81	1.03
Arkansas	0.72	1.36
Mississippi	0.69	0.96
South Carolina	0.53	2.16

more than 90% of the cases. That leaves 8% to 10% in whom the rash is not recognized or the patient never had one. I direct your attention to an article this past summer[6] on Rocky Mountain "spotless" fever. A series of patients were reported who never had a rash. Thus the disease was undiagnosed, and mortality increased.

The petechial rash is diffuse but usually spares the face. It begins on the ankles and wrists, and spreads centrally to involve the trunk, but it also spreads distally to involve the palms and soles in four out of five patients. Swelling of the hands, feet, and periorbital tissues may result from capillary leakage.

Mortality

Mortality in the preantibiotic era was approximately 30%, being highest in the older age groups. With treatment, the mortality should be 6% or 7% or less, still a high mortality for a totally treatable illness. The case fatality rate is greater in male than in female patients. The explanation for that is not really available. Blacks tend to do more poorly than whites, probably not because of racial differences but because the rash is easily missed in black patients.

Diagnosis

The diagnosis is based largely on clinical findings. There is no firm test at the time of admission to the hospital to make the diagnosis of RMSF definitively except one that I will tell you about below, but even it is not foolproof, and, in addition, is not yet widely available. If there is a strong epidemiologic history at the proper time of the year in an endemic area, therapy should be instituted on the basis of the clinical findings, and confirmation made later. There seems to be a time in the course of RMSF when the vasculitis has progressed to a point of irreversibility despite treatment. The differential diagnosis includes measles, atypical measles usually occurring in the wintertime, infectious mononucleosis, enteroviral infection, scarlet fever, immunologic thrombocytopenic purpura, endemic typhus, drug reaction, septicemia on any basis, rheumatic fever, toxoplasmosis, leptospirosis, bullis fever, and the one that everyone is afraid of missing, meningococcemia.

A word or two about differentiating RMSF from murine typhus. RMSF usually occurs in rural areas, endemic typhus in urban areas. Classically, the rash of RMSF begins peripherally and migrates centrally, whereas the rash of endemic typhus begins centrally on the chest and spreads peripherally. This is a helpful clinical point, but RMSF can occasionally begin as a diffuse rash and it does not have to display the classic presentation. Serologic testing helps to confirm the diagnosis of endemic typhus.

Serologic Reactions

The Weil-Felix agglutination of the OX-19 and OX-2 strains of proteus vulgaris is a reasonably sensitive test for several rickettsial infections. It takes up to six to eight days for this test to become positive with RMSF; early treatment may delay antibody development and obliterate the usual response. An isolated titer of 1:320 is suggestive, but a fourfold rise of the convalescent titer is more diagnostic. Serum for the Weil-Felix test should be drawn early to learn the initial titer and again after recovery. It is unwise, and could be fatal, to wait until the test turns positive before instituting treatment.

The Weil-Felix reaction can be positive in a number of other conditions such as proteus infections, acute liver disease, including hepatitis, and leptospirosis, so it is not totally specific for rickettsial disease.

Complement fixation is a less sensitive test but probably more specific. Hemagglutination, microagglutination, and micro-immunofluorescence are tests that are at present done on a research basis, require a high degree of technical skill, and are not commercially available, as are the Weil-Felix and complement fixation tests. To evaluate these newer tests, the acute and convalescent ti-

ters must again be compared. Latex agglutination is currently the test that is done at the state laboratory, I believe. It is an easy visual test and takes about 15 minutes to do. It has a sensitivity of 90% and a specificity of 93%. It is being tried in several public health laboratories in states having endemic RMSF. Although it has not replaced the two standard tests, it is being tried with the objective of earlier diagnosis; it is positive in the first four to six days of the illness.

Another new test that may be of diagnostic help early in RMSF is the immunofluorescence study of the biopsied skin. It is being done in North Carolina and in several other centers. A punch biopsy of skin involved by the petechial, macular, or papular rash must be made. If there is no rash the test cannot be done. It is positive in a large percentage of cases and represents a method of early diagnosis.

There was some confusion about the test on our patient. Someone said you had to do the biopsy where the tick bit. This is incorrect. The incubation period of RMSF after the tick bite is 2 to 14 days. A week or less after a bite, the site cannot be found.

Immunofluorescence studies may be negative if the patient had antibiotics for 24 hours prior to the biopsy.

Treatment

Two drugs are used, tetracycline and chloramphenicol, and both seem to be equally effective. In severely ill patients where meningococcemia or other bacterial infections cannot be ruled out, chloramphenicol may be the drug of choice. The other choices in this dilemma would be tetracycline and high dose intravenous penicillin. Tetracycline is effective, and can be given by mouth if the patient is not vomiting. Sulfa drugs seem to worsen the condition and are contraindicated in the treatment.

I have presented to you the clinical picture of RMSF of a severity requiring hospitalization, since this is the subset we usually encounter, but one-third to two-thirds of the cases can be managed on an outpatient basis once the diagnosis is suspected. If the patients are relatively healthy otherwise, oral tetracycline can be given.

I have been asked if I would treat every patient with a cold during the endemic season of RMSF with tetracycline. The answer is no. On the other hand, if the illness were febrile but otherwise nondescript in an endemic area during a high incidence period for RMSF, and if I could get any hint of tick exposure or of visiting where ticks are abundant, I probably would give tetracycline orally to try to prevent progression of the presumed early phase of RMSF.

Incidentally, giving tetracycline to prevent RMSF in a tick-infested area is of no use, as tetracycline only delays the onset of the illness; given prophylactically, it does not prevent the disease.

Acknowledgments:

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TENNESSEE MEDICAL ASSOCIATION
149TH ANNUAL MEETING
April 11-14, 1984
Hyatt Regency Hotel, Knoxville, Tennessee

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 23-year-old stockbroker developed headache, diffuse muscle soreness, loss of appetite, chills, and fever three days prior to admission. These symptoms improved slightly, but on the day of admission he developed mid-anterior chest "pressure," which progressively localized in the precordial area with radiation to the back and left arm, and was exacerbated with deep breathing. He described this pain as a vise "gripping" his chest.

Because of his chest pain he came to the St. Thomas Hospital emergency room, where his temperature was 101.5°F orally, blood pressure 110/76 mm Hg with a 4-mm paradox, and pulse rate of 76/min. The chest was clear to percussion and auscultation and arterial pulses were normal. An S_4 ws audible, and a harsh low-pitched early systolic grade II bruit was present over the precordium. The white blood cell count was 7.900/cu mm with 72% segmented neutrophils. The sedimentation rate was 44 mm/hr (normal 0 to 10). Admission creatinine kinase (CK) was 1,115 (normal 30 to 200) with 6% CK-2, LDH was 365 (normal 100 to 225), and SGOT was 221 (normal 13 to 46). Chest film showed no abnormalities. Echocardiogram showed borderline enlargement of the left ventricle, with a left ventricular end diastolic diameter of 5.7 (normal 3.5 to 5.6) and a left ventricular end systolic diameter of 4.1 (normal 2.0 to 3.7). Percent fiber shortening was 27% (normal > 25%). There was no evidence of pericardial effusion. An electrocardiogram was obtained (Fig. 1).

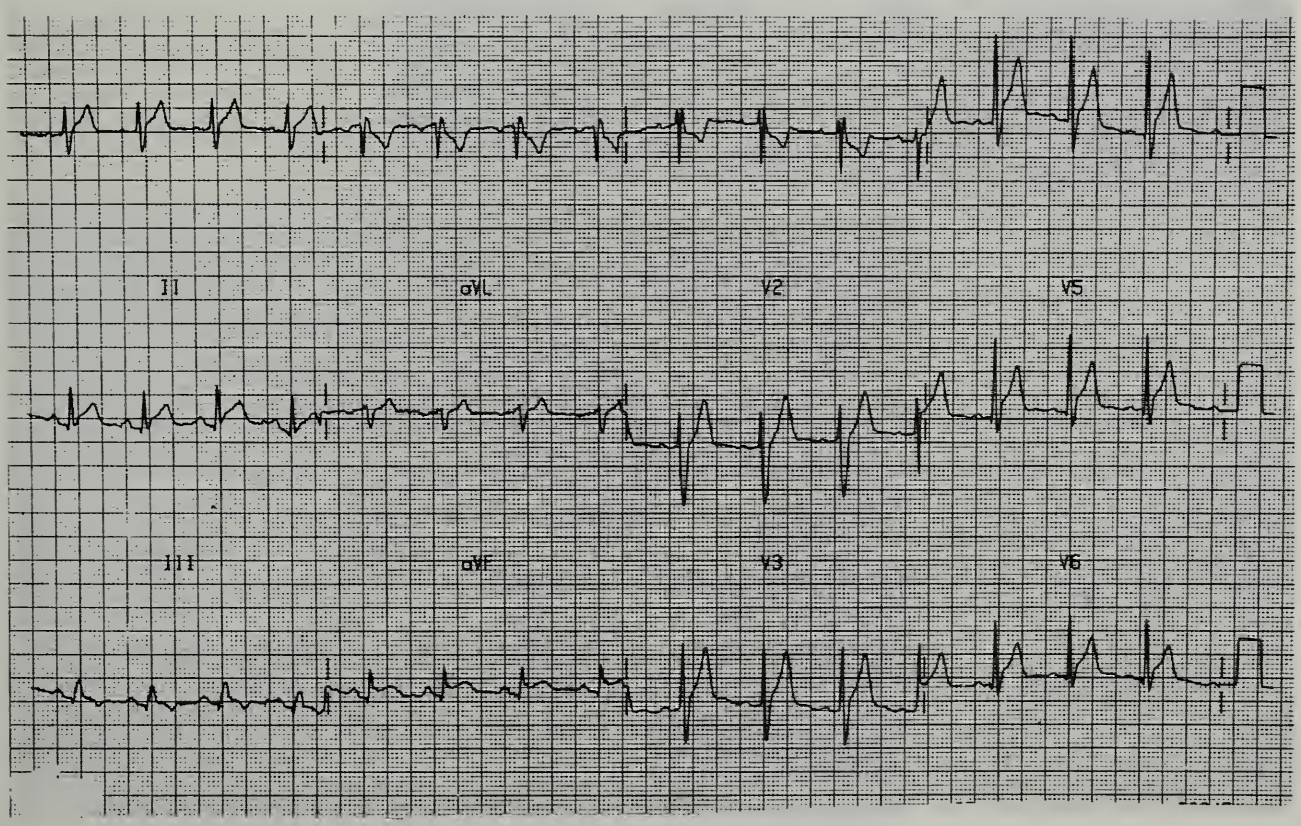


Figure 1

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

(Continued on page 739)

CAT Scan of the Month

STEPHEN L. GAMMILL, M.D.; ORIN DAVIDSON, M.D.; JOHN APPERSON, M.D.; and WILLIAM RUSSO, M.D.

A 60-year-old man complained of left lower chest and left upper abdominal pain followed by left flank pain. On admission his temperature was 101°F. His epigastrium and left flank were tender to palpation. White blood cell count was 19,600/cu mm with 90% segmented neutrophils, and there were three to five red blood cells in the urine.

Abdominal sonography revealed gallstones. Computerized axial tomography of the abdomen was done. Figs. 1 and 2 are representative cuts from this study. Please see if you can find an abnormality.

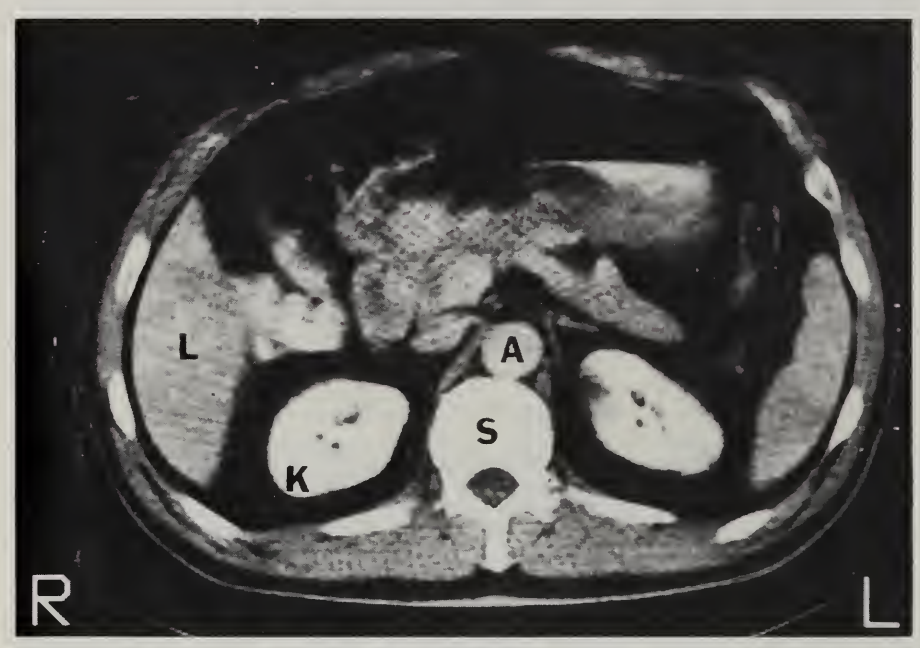


Figure 1. Computerized axial tomography at the level of the middle of the kidneys. Note the wedge-shaped radiolucency in the left kidney medially. (R = right, L = left, A = aorta, S = spine, K = kidney, L = liver)



Figure 2. Computerized axial tomographic cut caudal to the one in Figure 1. A radiolucent defect can be seen along the posterolateral margin of the left kidney. The cuts from both figures were made following intravenous administration of contrast medium.

From the Departments of Radiology, Gastroenterology, Urology, and Cardiology, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146.

Discussion

The right kidney is within normal limits. The left kidney shows radiolucent defects in the medial margin in Fig. 1 and along the lateral margin in Fig. 2. Since the defects were multiple, the most likely diagnoses were renal infarcts or multiple renal abscesses. Since the white blood cell count was elevated, the latter diagnosis was a distinct possibility. Since renal neoplasia, either primary or metastatic, could not be excluded, an arteriogram was performed, which showed small clots in the renal arteries of the left kidney and wedge-shaped filling defects in the kidney compatible with renal infarcts.

In search of an origin for emboli to the kidney, a cardiac workup, which included radionuclide ventriculography, coronary arteriography, and right and left heart catheterization, was done, uncovering left ventricular hypokinesis and coronary artery disease. Since the former may have been responsible for the emboli to the kidney, the patient was anticoagulated with coumadin, to be followed in six months with a repeat computerized axial tomography of the kidneys.

FINAL DIAGNOSIS: Renal infarction.

EKG of the Month

(Continued from page 737)

Discussion

This electrocardiogram displays normal sinus rhythm with a rate of 95/min. The PR interval is normal at 0.17 seconds, and the QRS duration is modestly increased at 100 msec. There are rightward and anterior late QRS forces (S in I and r′ in V_1) compatible with a right ventricular conduction delay, but the duration is insufficient, however, to interpret as complete right bundle branch block and the magnitude of these forces is insufficient to interpret as right ventricular enlargement. This pattern has been associated with hypertrophy of the crista supraventricularis, and is usually called right intraventricular conduction delay.

A striking finding is elevation of the J point in leads I, II, III, aVF and precordial leads V_3 through V_6. J point elevation of this type may occasionally be seen as a normal variant. In an older patient it would raise the question of ischemic inferior lateral epicardial injury, but in this patient the history and physical findings are strongly suggestive of pericarditis. A leftward and inferior orientation of the ST segments (causing the above changes in J point) have long been recognized as a frequent occurrence in the acute phase of pericarditis.[1] Repolarization changes of this type may occur in a wide variety of circumstances, and since they are clearly nonspecific, they should always be correlated with additional clinical data to make an appropriate diagnosis. In this patient, the CK elevation, echocardiographic abnormalities, and electrocardiographic repolarization changes suggest myocardial inflammation. As subjacent myocardium is commonly involved with pericardial inflammation, the term myopericarditis may be preferable.

This patient was placed on indomethacin therapy and rapidly became asymptomatic. Antinuclear antibody and rheumatoid factor were absent. He was not anergic but a tuberculin skin test was negative. He was discharged five days after admission to continue indomethacin therapy.

CONCLUSION: (1) ST segment changes consistent with myopericarditis; (2) intraventricular conduction delay.

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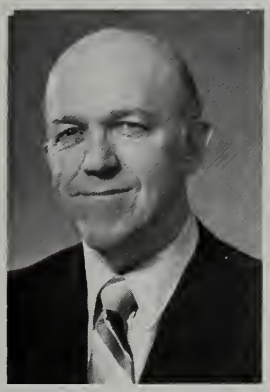
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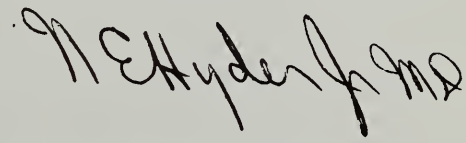
University of Alabama Medical Center



NAT E. HYDER, JR.

Another Point of View

A friend and former patient of mine (a native of Chattanooga), Merrill Millard, who is vice president of personnel for Lynch Communication Systems Inc., an international telecommunications firm based in Reno, Nevada, and president of the Northern Nevada Employer's Health Cost Coalition, recently expressed the following thoughts on health care costs to me. I thought it would be good for my fellow Tennessee physicians to know how a friendly business leader thinks about problems that concern us.



We are on the threshold of sweeping changes in the way we relate to those who are entrusted with the healing arts. Relentlessly, increasing health care costs have resulted in serious questions being raised relative to financing and delivery of health care. Employers are no longer able and/or willing to continue absorbing the escalating cost of health care benefits.

Competition between physicians and between hospitals and physicians is increasing. The number of physicians in the United States increased by 38% in the last decade. A report issued by the U.S. Department of Health and Human Services projects that by the year 2000 there will be 704,700 active physicians although the nation will need only 672,200 of them. However, we know that classical economic supply and demand doctrine has no meaning in communities with too many doctors and an excessive number of hospital beds.

Many feel that physicians now perform tasks which could be done safely and less expensively by other, less skilled, health care practitioners. It would appear that as the number of unneeded physicians increases this situation will be exacerbated.

Group insurance programs, paid for to a large extent by employers, generally make payments based on what is viewed as "customary and reasonable" for the geographic area involved. With health care costs rising at a rate three times the consumer price index, we must question whether "customary" is in fact "reasonable."

The alarming rate of rising health care costs has resulted in business coalitions being formed throughout the country, new health care competition bills being introduced in Congress, and labor unions struggling with give backs of previously won benefits.

The present dilemma raises many social and economic questions. These questions must be faced cooperatively by purchasers of health care, providers of health care, and consumers of health care. While many business coalitions exclude providers from membership, this does not preclude such cooperation.

The following are examples of actions which physicians can implement immediately and independently to address this issue:

(1) Understand that in most cases individuals seeking health care do not have the knowledge to purchase care efficiently. Assist your patients in this regard.

(2) Establish peer review programs that monitor the necessity for institutional care, the length of patient stays in hospitals, the necessity of operations, and quality of care. (Hospital costs account for 70% to 80% of health care costs and physicians are in the best position to control the costs related to institutional care without sacrificing essential health needs.)

(3) Schedule tests and surgery on an outpatient basis if at all possible.

(4) Allow patients to recuperate at home if their condition permits.

In addition, physicians should use their influence in their communities and on the boards on which they serve to discourage the construction of unessential hospital rooms. Regional hospital plans are needed to prevent hospitals from amassing the same kinds of equipment and from duplicating each others' services. Hospitals are now competing to be superior in all aspects of health care rather than cooperating and excelling in specific areas. We need a coordinated health care system!

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NOVEMBER, 1983

editorials

Why Thanksgiving?

Each year I write an editorial salute to Thanksgiving, a day first set aside by President Abraham Lincoln for reminding ourselves of the bounties God has seen fit to shower upon this nation. On the face of it, there are two things wrong with doing that in this modern, hurried age. In the first place, gratitude to God, or even acknowledgment of Him at all, is considered old fashioned—even passe—in many quarters. When was the last time, for instance, that you heard His name mentioned, except in a profane way, on TV, unless it was on a program sponsored by a religious organization? It has become fashionable to poke fun at God—not gentle fun, either—instead of acknowledging him as Lord of anything at all, let alone the Universe. Nature programs picture the Universe in general and man in particular as a sort of cosmic accident, and not God's creation. So much for God.

Now, about the bounties. Have you looked at the newspapers or news programs, or even out the window, lately? First, everything is drying up, both here and pretty much everywhere else, whatever has not been either flooded out or blown away. Food prices are bound to rise as a consequence, and many folks will be on reduced rations, what with high unemployment and reduced welfare. Besides that, international relationships are deteriorating everywhere, and there are not only rumors of wars, but wars in fact—small, contained wars, to be sure, but still wars. Like fires, wars have a way of breaking out of bounds. In addition, the financial structure, locally and worldwide, is shaky, not to say crumbling, and for all anyone knows we may be heading toward spiraling inflation, where a loaf of bread will cost a hundred dollars, or a deep depression, or both—or neither, for that matter. Alcohol abuse has been a problem always, but now we read of cocaine use in banks and brokerage houses leading to all sorts of fiscal disasters.

Our profession is not faring too well, either. Increasing regulation is taking the fun out of medical practice, but still worse, it is causing deterioration in quality of patient care, as cost becomes the major concern of regulatory agencies. Declining prestige and dwindling incomes are plaguing the profession, as competition increases, and means, usually fair ones but sometimes not, are called into play to combat it. Worst of all, some of the competition is funded by our own tax dollars.

Sure enough, on the face of it, it looks as if God and His world are slipping down the tube together with wild acceleration. On the other hand, I wouldn't count God out, as He has seen all this happen many times before, and has managed to survive. I wouldn't count us out either, if—but only if—we play our cards right.

That first Thanksgiving was proclaimed when our country was at war with itself, with a shaky, unpopular government and a strained exchequer. President Lincoln invoked the formula for sur-

vival given by God thousands of years ago. It has never failed, though God's idea of survival and man's do not always coincide. God said, "If my people who are called by my name will humble themselves and pray, and seek my face, and turn from their wicked ways, then will I hear from heaven, and will turn and heal their land." It is not a magic formula, nor is it an easy one. But it is God's formula, and though it is seldom tried, it works.

That is why Thanksgiving. We give thanks not for what we have, but for who we are. The Lordship of God, though, is voluntary, and not imposed. Perhaps we have grown too proud to acknowledge it—too sophisticated, too prosperous for such nonsense. If so, then we should indeed worry about the signs all around us. We should, in fact, be terrified if it is true the Universe has no meaning and no guidance.

A fairly standard reply to the query, "How are you?" is, "Very well, thank you—under the circumstances." We do not need to live under the circumstances; we have been shown the way out of there; but we have to make a choice. We can enter into His gates with thanksgiving and into His courts with praise, and bless His Holy Name. Or we can stay under the circumstances, along with our pride and—if we are lucky enough to have one this year—our turkey.

J.B.T.

On Just and Unjust Desserts

If you would like a sneak preview of Socialized Medicine, USA style, read our President's Page in this issue. The difference between ours and the socialized medicine found in other countries is that ours is being imposed upon us not only by government but to a great extent by the private sector as well; it will come about because "employers are no longer able and/or willing to continue absorbing the escalating cost of health care benefits." The overlord of the operation is in the form of Business Coalitions for Health Action, of which there are presently 105. Only 44 of those 105 have health care providers (this includes hospitals as well as doctors) as members.

The blueprint is to be found in the last paragraph of the letter, written at the request of President Hyder by a businessman who is president of one of the coalitions. The magic word is *regional hospitals*, which are necessary for a coordinated health care system. You may boil that down further to *hospitals*, which will be the power base of medical practice in the future. The regional hospital is characteristically a specialty hospital; there is one for chest diseases, another for cancer of the female genital system, one for GI diseases, and so on. That is the way it is in Britain.

The doctors in Sweden have fared much better than those in Britain, because the Swedish Medical Association, unlike its British counterpart, is a very strong organization that speaks for all Swedish doctors, and has therefore been able to effectively stand up to government and other interests arrayed against it.

Because employers will cut back their participation in health benefit plans, leading to diminished funds for medical care, there will be de facto rationing of health care, despite the railings of the DHHS against such a suggestion. Obtaining specialized care will be neither easy nor convenient, as it may involve travel to another city. Thus will end the doctor-patient relationship. The government's role will be to declare health care a public utility, and regulate rates and services in the same way it does telephone rates. It will doubtless be the coordinator of our coordinated system, decreeing which procedures are to be carried out by which physicians in which hospitals, and which by less skilled practitioners, if at all. The ultimate loser will be the patient, whose hernia will go unfixed, his coronary blocks unbypassed, his blood undialyzed, and so ad infinitum.

While those in power have always been willing for lesser mortals to have inferior care, they have always required that no means be spared to assure that their own care be the best. That best has frequently included travel to the United States, the last bastion of medical freedom, where medical costs are high due largely to sophisticated technology unavailable elsewhere. When those in power in the United States have had their way, there will be no last bastion. Where will the rich and powerful then turn, after they have killed the goose that laid the golden medical care?

Instead of organized medicine, we have in this country disorganized medicine, with specialty groups warring over turf rights, and all of them quarreling with the AMA. About half of our physicians see no need for an umbrella organization to speak for them. By the time that need becomes apparent to them, it will be too late.

They will deserve what they get.

What is sad is that we too will get what they deserve, and so too will both their patients and ours.

J.B.T.

Every Day In Every Way . . .

Congressman Larry McDonald, M.D., of Georgia is dead. So is Sen. Henry Jackson of Washington. Dr. McDonald died proving the Soviets are the callous, bloodthirsty liars both he and "Scoop" Jackson always said they were. Dr. McDonald missed his scheduled flight to Seoul, Korea, and was therefore aboard the ill-fated Korean Airlines Flight 007 that was destroyed by a Soviet air to air missile. Sen. Jackson, just returned from a visit to the Soviet Union, died of a heart attack shortly after denouncing the Soviets for their cold-blooded murder of Dr. McDonald and his 268 fellow passengers. Perhaps the tragedy was more than Sen. Jackson's heart could stand. We will never know. What we do know is that whatever else one might think of Scoop Jackson's politics, he was absolutely correct about one thing. The Soviets are bloodthirsty, reckless, unprincipled liars. It is time our ostrich-like brethren in the Congress and their counterparts the world over acknowledge the impossibility of making any sort of agreement with the Soviet Union that is not bilateral and not subject to open and adequate monitoring. That one murderous act alone, an act documented to have been a coordinated, premeditated attack, one defended by Soviet leaders, should prove to everyone, including the deluded Council of Bishops of the Roman Church, just what sort of diabolical creatures confront us.

Of all people on earth, that body, since they have ostensibly studied holy writ, should know the follies to which the flesh is heir. If they believe the scriptures they know what man without God is like. The Soviets are openly—brazenly—godless, mocking God and persecuting His followers. Alexander Solzhenitsyn, who understands the Soviets and their system better than anyone in the West, having suffered under it for decades, has repeatedly castigated the West for its failure to grasp the depravity that characterizes the entire system. Even though not everyone by any means in the West subscribes to Judeo-Christian doctrine, it pervades our culture, and even though members of our society are constantly guilty of godless, even on occasion reprehensible, acts, pangs of conscience continue to goad us individually and as a nation to repent and make amends. There has been no indication of remorse from the godless Soviet Union, and they have in fact declared that since Soviet borders are sacred, they would do it again. We delude ourselves if we expect anything but abuse from them along these lines or any other. It should have become abundantly clear over the past few decades that Coué was not correct, and that every day in every way we (meaning mankind) are *not* growing better and better unless God's Spirit is transforming us.

One must wonder about reasons for such a brazen disregard for international convention. It must raise suspicions of baiting. There was a time when the United States would rise to any occasion, and prepare itself for whatever eventualities or consequences might befall. All this was changed by Vietnam, when a large segment of our population treated our own military as if they were the enemy, and the enemy as if they were the poor, beleaguered, downtrodden victims of our aggression. All this must have proved very instructive to the Soviets.

Our Congress, the President, and our United Nations delegation have raised cries of righteous indignation, as indeed they should have, but then so did they when Hungary was overrun. More recently, after an initial flurry, the Afghans were left to shift for themselves and die. Those events, though, were substantially different from this one, as they involved war. The Soviet Union's response puts me in mind of Liberace's reaction to all the unkind things said about him even as he was bringing the world to its knees before him. It was said he cried all the way to the bank. It remains to be seen whether this administration will in the long run behave any differently than the others.

The world is so fearful that it might do something to endanger world peace that the West time and again has preferred to ignore as mere peccadillos the slaughter of innocents by the Communists. The Soviet Union thrives on—indeed it has gained the ascendency through—intimidation. Intimidation breeds timidity—nothing else. It certainly does not engender peace. There is no indication, either in holy writ, Christian or otherwise, or in the history books, that the cause of peace is or ever has been served by accommodating liars and murderers.

Though it is doubtless true that "thrice armed is he that hath his quarrel just," that will not do the job by itself in this day of modern arms, particularly nuclear ones. If swords are to be beaten into plowshares, we had better all do it together, else those left holding the plowshares will be plowing with them as slaves of those who kept their swords. One must conclude, in light of recent events, that despite mouthing pleasing platitudes, the Soviet Union's intent is to go on sharpening instead of reshaping their swords, and that with the world's resources running out, any plowing we might do would not be for ourselves.

My concern is that both our swords and our national will may have become so blunted that we are no longer able to do anything to halt the process.

J.B.T.

Mad Generals and Sad Watchers

Although there is no question that compared to those of a decade ago, today's fashions are at least neat and in some ways sedate, and though they generally cause less consternation among the more zipped-up members of our society, the unbuttoned life-style, which is still very much with us, occasionally gets its come-uppance. A brief news item in the *Wall Street Journal* the other day recounted an act by Maj. Gen. Harry R. Dukes, Jr., commanding general at Fort Lee, Virignia, which took perhaps as much courage as any performed in combat (military combat, that is). He decided he had had enough of clothing that "brings discredit to the Army, to the flag of the United States, or to any nation," so he forthwith banned the wearing on the post of, among other things, short-shorts, see-through clothing, and underwear worn as outer-wear. It is in the finest tradition of that duty station.

I am not sure what relationship Fort Lee has to Washington these days, aside from its physical proximity, but when I was stationed there briefly about 40 years ago, before it had acquired its present august title, Camp Lee was the Army's showplace. In its elegant officers' club so much entertaining of Washington officialdom was carried out that it incurred the wrath of *Washington Post* columnist Drew Pearson, precipitating a congressional investigation—another instance of Congress investigating itself. In any case, everyone stationed at Camp Lee was always on his best behavior. I once saw Gen. Horkan, the commanding general, require a bird colonel to "police that butt," which the hapless officer had failed to field-strip and simply dropped around the pool at the officers' club. It was said the general drove around the post on Sundays simply to upbraid individuals who failed to salute his car. While the story is doubtless apocryphal (though based on fact), it does describe the tone of the place. Luckless GIs who wound up in the stockade spent their time touching up the paint on road markers, fences, and anything else that looked dingy. It was all summed up in the popular slogan, "If it moves salute it; if it doesn't move, pick it up; if you can't pick it up, paint it green and white."

While Gen. Horkan—and I suspect Gen. Dukes, as well—would not have won any popularity contests, and was the butt of many jokes and the object of much derision and wrath, I doubt that he thought of it twice—if even once; he simply ran a tight ship. There are a lot of ships around today that need some loose cannons tied down, and despite the furor that not unexpectedly greeted Gen. Dukes' edict, he deserves a medal. Bare feet, sleeveless shirts, and some bathing suits as general clothing are also out at Fort Lee, as are items of clothing bearing slogans or graphics derogatory of any racial, ethnic, religious, or political group—which, incidentally, the American Civil Liberties Union (ACLU) says may violate their right to free speech.

Chafing under authority is as old as sin, and not by any means confined to the military. Young people in general tend to see how far they can try their parents' patience, and how far a rule will bend before it breaks. Having attended a military school for four years, I developed a distaste for hats and neckties. Yet, when I entered college at Vanderbilt, there were some classes where one did well to wear a necktie. Socks were frowned on for the women, and a demonstration was once mounted in protest. It was short-lived. It would never had occurred to anyone, male or female, to wear shorts or sleeveless shirts (tank tops), and of course blue jeans were unheard of east of the Mississippi River. In those days, the ruling class—parents, teachers, and our elders generally—had the upper hand.

That was before the days of the ACLU. The possibility of corporal punishment in school was ever present, and I and most of my peers lived under the added threat of a repeat performance

after we got home if we were ever subjected to it in school. We were never told our civil rights were being violated or our personalities warped, so most of us turned out all right, though a good many did not survive World War II. I suspect the casualty list might have been longer had we not learned discipline literally from the ground up. Athletes get hurt most often when their concentration lapses and their discipline flags, and soldiers get killed the same way.

Although Gen. Dukes may have overdone it a bit, perhaps he will set a precedent that will spread to the civilian sector. Laid-back is one thing. Slovenliness is something quite different, and, as he said, disgraces a nation. It is a state of mind, and it is not seasonal. Whatever the occasion, there is both appropriate and inappropriate dress. To observe the latter, try a shopping mall or your supermarket any summer day, but particularly on weekends. Whether it was Gen. Dukes' sense of propriety or his sense of aesthetics that was offended, I have no way of knowing (perhaps it was both), but it has always been my distinct impression that in general—not always, but generally—there is an inverse relationship between the amount and the attractiveness of the flesh exposed—or, as a reporter covering (sic) a nudist convention once observed, "People except Marilyn Monroe should wear clothes."

After some thought, I have concluded that whereas on a military post the general rules supreme, and it takes a heap of doing to countermand his edicts, the American public recognizes no master except fad and fashion, and mostly has little sense of either propriety or aesthetics. Those of us, then, with tender sensibilities should consider the following parable of the desert for counsel, and heed its lesson for our comfort.

In lands well watered by rushing streams that cascade down from the mountains, lush green grass and the cool shade of spreading forest giants are taken for granted. Not so in the desert, where the allure of even the smallest oasis is boundless. Once sighted, the oasis draws the weary, eye-sore traveler like a magnet, and its blandishments quickly erase the memory of burning sands and blazing heat. The bliss of those moments fades slowly, often remaining fresh in the memory until the next oasis offers its succor. In such a way the desert wanderer is sustained.

Some sloppy summer days in your private Sahara you have to look hard to find any succor at all.

J.B.T.



Cohnheim's Second Century

To the Editor:

The Department of Pathology, University of Tennessee Center for the Health Sciences, Memphis, will sponsor a symposium to commemorate the centennial of the death of Julius Cohnheim in August 1884, to be held in Memphis, Sept. 21-22, 1984.

Papers on the history of pathology and medicine, the historiography of science, and on the development of and future of research and teaching in pathology are solicited.

Persons interested in contributing to or attending the symposium should contact me.

D. R. Shanklin, M.D.
Vice Chairman
UT Department of Pathology
858 Madison Ave.
Memphis, TN 38163



Reid Llewellyn Brown, age 59. Died September 5, 1983. Graduate of University of Tennessee College of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Orin L. Davidson, Jr., age 66. Died August 25, 1983. Graduate of University of Chicago Rush Medical College. Member of Memphis-Shelby County Medical Society.

Arnold Haber, Jr., age 57. Died August 9, 1983. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Howard W. Whitaker, Jr., age 62. Died September 13, 1983. Graduate of University of Louisville School of Medicine. Member of Consolidated Medical Assembly of West Tennessee.

Gustavus Adolphus Williamson, Jr., age 87. Died August 27, 1983. Graduate of Harvard University Medical School. Member of Knoxville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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Richard Ellison McLendon, M.D., Nashville
H. Clay Newsome, III, M.D., Nashville
Yeshawant B. Paranjape, M.D., Hermitage
Michael Ray Petracek, M.D., Nashville
Dan Sumners Sanders, III, M.D., Nashville
Stephen Michael Staggs, M.D., Brentwood
Robert Jay Workman, M.D., Nashville

SULLIVAN COUNTY MEDICAL SOCIETY
William Emerson, M.D., Kingsport
Richard A. Feit, M.D., Kingsport
John A. Playfair, M.D., Bristol

personal news

Wood M. Deming, M.D., Jackson, has been elected to Fellowship in the American College of Cardiology.

Thomas Hamilton, M.D., has been elected president of the medical staff at Gibson General Hospital in Trenton. Other officers elected include *W. C. DeSouza, M.D.*, vice president; and *Floyd Reed, M.D.* secretary.

Hal Henard, M.D., Greeneville, has been named the 1983 Outstanding Alumnus by the University of Tennessee College of Medicine Alumni Association.

TMA Members Receive AMA Physician's Recognition Award

Twenty-five TMA members qualified for the AMA Physician's Recognition Award during August 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

John L. Armstrong, M.D., Somerville
George F. Bale, M.D., Memphis
James A. Bookman, M.D., Madison
Maury W. Bronstein, M.D., Memphis
Gary K. Bryson, M.D., Nashville
Keith H. Byrd, M.D., Kingsport
Robert A. Crawley, M.D., Knoxville
Robert W. Dunavant, M.D., Bolivar
Walter W. Frey, M.D., Nashville
Francis A. Goswitz, M.D., Oak Ridge
David L. Greene, Jr., M.D., Morristown
Clark R. Gregg, M.D., Nashville
George E. Hazlehurst, Jr., M.D., Jackson
Kenneth Hicks, M.D., Franklin
Joseph S. Hudson, M.D., Memphis
David H. Knott, M.D., Memphis
Charles W. Mercer, M.D., Memphis
Alan M. Nadel, M.D., Memphis
Nora Nery-Manalo, M.D., Johnson City
George W. Oden, M.D., Greeneville
Joseph C. Parker, Jr., M.D., Knoxville
Arturo N. Ruanto, M.D., Celina
Paul E. Slaton, M.D., Nashville
John B. Thomison, Jr., M.D., Nashville
David T. Upchurch, M.D., Oak Ridge

national news

From the AMA's Office in Washington, D.C.

DRG Rules Make Debut

Rules to put in place a new payment system considered to be the biggest change in the history of Medicare were published Sept. 1—just one month before the first hospitals entered the new system.

Medicare officials said they do not expect the changes to have any immediate impact on beneficiaries and stressed their belief that hospitals can improve efficiency without downgrading quality of care.

Payments to physicians are not directly affected by

the new pricing mechanism. However, hospitals are expected to change their behavior in ways that will have a substantial impact on physicians, and Congress has asked for a study of the feasibility of including some physician payments in the plan in later years.

Last year, about two-thirds of the $50.9 billion Medicare paid for care of its 26 million elderly and 3 million disabled beneficiaries went to hospitals. Previously enacted changes in Medicare already were expected to keep payments to hospitals about $1.5 billion below what they would have been otherwise, and the new diagnosis related group (DRG) plan, just as Congress ordered, has been deliberately set to save the same amount as would have occurred under the earlier changes.

Federal officials said they can't estimate how much the program ultimately may save, but they think it could be "billions" if payments are "ratcheted down" hard enough. Without further changes, however, the Medicare hospital trust fund is still expected to be bankrupt by 1990.

About 1,500 of the nation's 7,000 hospitals came under the DRGs on Oct. 1. Another 4,000 will be phased in as they start their new accounting years. The remainder are exempt for the time being.

Developed at Yale University, the DRG system is based on 468 illness categories that take account of factors such as age and sex. The categories are weighted according to the cost involved in treating the condition. For example, payment for a coronary bypass with a cardiac catherization (DRG 106) would be 10 times the payment for a cataract operation (DRG 39) weighted at 0.510. The Yale system used 467 DRG categories but DRG 468 has been added to the federal plan to cover situations when two unrelated procedures are performed.

The actual payment to the hospital is derived by multiplying the weight of the DRG times a base payment calculated by Medicare officials. Hospitals will be paid at the predetermined rate no matter what their costs were, although there are some adjustments for unusually high cost or lengthy cases.

If the hospital's costs exceed the payment rate, it must absorb the loss. If costs are below the payment, the hospital can make a profit.

Initially, the actual payment to the hospital will vary by region and by hospital, since the base rate is calculated from a blend of the hospital's historical costs, an adjusted average rated for all hospitals in the region, and a national rate. Both an urban and a rural rate have been calculated for each of nine regions and for the nation as a whole.

Base rates will continue to be blended—with regional and hospital-specific rates making up a decreasing proportion of the blend—for three years. In the fourth year, there will be only the two national rates.

The newly just-published regional rates vary from about $2,142 for a rural hospital in Louisiana or Texas to about $3,021 for an urban institution in Illinois or Ohio. National base rates have been set at $2,837 for urban hospitals and $2,264 for rural facilities.

Several adjustments have been made in the hospital-specific rates, including one involving payments to certain types of personnel—such as laboratory technicians and nurse anesthetists—whose services to the hospital in the past may have been billed through a physician rather than through the hospital.

Known as "unbundling," this practice, which Medicare officials say has been spreading, will no longer be permitted. As of Oct. 1, any hospital services provided by non-physicians will be paid only through the hospital. This will apply whether or not the hospital involved is under the DRG program, although an exception will be made for a limited time for nurse anesthetists and for certain facilities such as the Mayo Clinic where unbundling has been a long-standing practice.

The new payment system does not apply to outpatient services, capital expenditures or medical education, all of which for the time being will still be reimbursed on a cost-related basis. Acquisition of kidneys for transplantation will be reimbursed at cost, but only at certain regional transplant centers.

About 20% of all hospitals will be excluded from the DRG plan either because they are covered through one of four state cost control programs (New Jersey, New York, Maryland, or Massachusetts) which have received Medicare waivers or because they are a type of facility exempted from the law. The latter include psychiatric and rehabilitation facilities and sole community hospitals in remote areas.

The system also provides for some patients where the cost or length of hospital stay greatly exceeds what would be expected for the average case in the DRG.

Called "outliers," these are defined as cases where the length of stay exceeds the mean by the lesser of 20 days or 1.94 standard deviations, or where the costs exceed the DRG payment by 1.5 times the DRG payment or $12,000, whichever is greater. Hospitals will recover about 60% of their costs in excess of the DRG payment for these cases. Nationally, the total proportion of outlier payments will be limited to 6% of total DRG payments for all hospitals.

PROs "Scope Of Work" Published

Federal officials say Medicare's new prospective pricing plan will save money without reducing the quality of care hospitals give elderly and disabled patients.

To accomplish that, the government will be relying heavily on new Professional Review Organizations (PROs) to keep tabs on hospitals that cheat. In the interim, the task is likely to fall to their predecessors—Professional Standards Review Organizations (PSROs).

A funding problem that threatened the immediate demise of PSROs and jeopardized the fledgling PRO program that is to replace PSROs appeared to be easing in late September.

As this article went to press, the Senate Appropriations Committee had just approved $17 million for PSROs in 1984. In addition, Congress was working on a stop-gap measure to fund through Nov. 15 those government agencies, including the Department of Health and Human Services, for which no final fiscal 1984 appropriations bill has been adopted. That meas-

ure, which was expected to be approved by both Houses, would continue funding PSROs during the 45-day period at the current level of $9 million a year.

The law which created the new diagnosis related groups (DRG) payment system specified that after Oct. 1, 1984, no hospital could receive Medicare payments unless a PRO was reviewing the care it provided Medicare patients. Prior to that time, the hospital must have a contract with a PRO only if a PRO exists in the area.

However, a threat to PSROs and PROs developed when the House Appropriations Health subcommittee, at the behest of Office of Management and Budget Director David Stockman, approved a 1984 funding bill that specifically prohibited funding or contracting with either PSROs or PROs. The language was approved by the full appropriations committee and then by the House. A similar funding measure approved by a Senate subcommittee was silent on the issue but provided no funds for PSROs.

Had either the Senate subcommittee measure or the House appropriations bill gained final approval by both bodies of Congress, the funds for PSROs would have been terminated as of Sept. 30. Had the House language prevailed, the PRO program apparently would have been gutted.

With the funding crisis at least temporarily resolved, organizations have turned to regulations published in mid-August to decide whether they are eligible to bid for the 50 PRO contracts to be awarded beginning next spring. Details were provided in draft "scope of work" principles and evaluation criteria made available through an announcement in the Aug. 29 *Federal Register*.

The documents reveal the extent to which PROs will be involved in monitoring hospital payments under the new DRG system. They detail a "cost-benefit" analysis that will be the key to renewal of PRO contracts and, some say, to the fate of physician involvement in the medical review process.

They also lay out a point system on which PRO contract bids will be evaluated. The point system signals the types of organizations that will have the advantage in PRO bidding and the proposed activities that will carry the most weight. Based on a 1,000 point total, it emphasizes objectives aimed at controlling hospital admissions (185 points) and quality of care (also 185 points), data collection and analysis (100 points), experience (150 points), and the quality of the personnel who will be managing the PRO and reviewing care (200 points). Physician-sponsored organizations will be awarded an extra 100 points, making it possible for them to accrue 1,100 points.

Several aspects of the point system are expected to draw controversy. Some observers say the 100 point bonus for physician organizations may not be large enough to give much advantage to the many state and local medical societies expected to bid for PRO contracts, but when added to the 150 points awarded for experience, this would give a significant advantage to the existing PSROs. Others say that despite the equal weighting given to quality and admission objectives in the point system, the "scope of work" principles tend to emphasize cost over quality. They note that prospective PROs are required to include only one quality objective compared to at least six that are focused on admissions and costs.

In addition, an "admissions factor" included in the "cost-benefit" analysis, in effect, grades the PRO on how well it is able to hold down or reduce hospital admissions—a feat some doubters think may not be feasible in view of the strong incentives the DRG payments give hospitals to increase admissions.

Health Care Financing Administration staff who developed the documents say their intent is not to give more weight to cost control than quality but that it is easier to measure costs than quality. They are seeking comments on ways to strengthen the quality objectives in the final "scope of work" principles.

The "scope of work" draft requires the PROs to check (or validate) the data the hospitals give the Medicare intermediaries who assign the proper DRG; review atypical (or "outlier") cases that exceed the normal costs and lengths of stay for a particular diagnosis, and monitor hospital admission patterns.

Other key portions of the draft documents deal with data, subcontractors, and the criteria for determining what constitutes the norms of care against which reviewed cases will be measured. In all three instances the PROs have been left considerable leeway, although subcontracting, as the law mandates, cannot be with a hospital in the area.

HCFA staff tentatively plans to issue requests for bid proposals for about 30 PRO contracts by the end of November and to award contracts in these PRO areas by May of next year. Requests for proposals for the remaining areas would be issued in late February or early March and contracts awarded by the end of the summer. All PROs would be up and running by Oct. 1, 1984.

Extending DRGs To MDs?

Despite reports to the contrary, Medicare officials say they haven't reached any conclusions about extending DRGs to physicians.

That was the message program officials brought to an AMA-sponsored meeting in Washington. But they also warned that if physician DRGs are recommended, payments to the physician might be made as a part of a lump sum to the hospital. On the other hand, the payment might be made to the physician who would then pay the hospital, they said.

Despite the seemingly flip-flop attitude at HHS, what is clear is that the Congress has directed the Department to study and advise the Congress as to the "advisability and feasibility" of extending DRGs to physicians' services to hospitalized patients. Some critics charge that the Department has already made up its mind on the issue—that the only question is how, not whether, to extend DRGs to physicians.

HCFA officials at the AMA-sponsored meeting took issue with that view, saying they have not prejudged the data they are just beginning to collect. The question, HCFA Administrator Carolyne Davis, Ph.D., told the group, "is not one of feasibility but of advisability."

A physician DRG "is feasible, given a period of

time for us to collect the data," Davis said. "What we don't know yet is whether it's advisable and I know of no way to make that determination except to step back and examine all aspects of physician reimbursement."

In developing a recommendation regarding physician DRGs, Davis said she will be guided in part by an ad hoc group of physicians whom she personally selected and which includes several AMA delegates and alternate delegates.

HHS has also set up several studies to help decide whether physicians should be included in DRGs. One by Brandeis University Health Policy Center will help determine whether DRGs are "sensible given the way physicians practice," HCFA official Alan Dobson reported.

Another by a Northern Virginia consulting firm, Mandex, Inc., will look at data from New Jersey and South Carolina to see what happens when Part A and Part B data are merged and to determine how many of the physician changes prior to and following hospitalization should be included in the DRG. A third study by the Urban Institute is aimed at the development of a method of determining relative values of procedures in a DRG-type system. A fourth by the Center for Health Economics Research will use North Carolina and New Jersey data to focus on how to package physician services in a DRG.

The latter will be addressing one of the critical questions associated with including physicians in DRGs—who do you pay? As HCFA's Dobson puts it, there are three possibilities: paying hospitals a lump sum to be allocated among the hospital and physicians; paying the physicians a lump sum to be shared with the hospital; or paying "as we do now," with physicians reimbursed under Part B and hospitals under Part A.

One thing that has already been pretty much decided, according to Dobson, is that there will be a lump sum payment. "We're not too inclined to pay separately for each physician," he said.

Sen. David Durenberger (R-MN) also thinks there should be one lump sum payment—preferably to the physician. Durenberger, who chairs the Senate Finance Health subcommittee, said that if "an individual physician or a physician organization were willing to accept the entire payment and contract with the hospital for institutional services, then to me that's a better way to go. If physicians are not willing to accept that responsibility, of course we as payers are going to choose to pay the hospital."

New ID System For Tracking AIDS

Responding to physician pressure to preserve patient confidentiality, the Center for Disease Control has devised a new identification and reporting system for AIDS cases.

Physicians in Washington, D.C., New York and several other cities recently stopped reporting names and personal identifiers to the CDC. Instead, city health officials reported only initials, sex and date of birth of patients. Additionally, physicians only partially completed the four-page case reports.

So the CDC has decided it no longer will require names of patients.

Instead, each case report will be identified using a special code. The detailed case reports have been scaled down to one page, requiring information only directly relevant to the AIDS diagnosis.

The new SOUNDEX code on each case report will identify patients by the first letter of the patient's last name and three numbers (each representing a letter in the name). Some letters of the alphabet are represented by the same number; some letters are not represented at all. Thus, it is impossible to reconstruct a name knowing only the SOUNDEX code, CDC officials say. For example, the code "H 452" could be used for the name Holmes. But it could just as well represent the name Hollings.

The revised case report will no longer require that physicians describe nonspecific symptoms or signs of AIDS such as fever, weight loss, or enlarged lymph nodes. Nor will physicians be asked to pinpoint the sites of lesions in Kaposi's sarcoma. Additionally, questions used to identify a specific method of diagnosis have been abandoned. For example, the CDC used to accept a diagnosis of pneumocystis pneumonia only when confirmed by biopsy; now, although the physician is instructed that biopsies are the only way to accurately identify the disease, he or she will no longer be asked to identify the method of diagnosis.

Neither system requires that physicians submit patient Social Security numbers, specific sexual practices, number of sex partners, or other information, the CDC stresses.

The new code could jeopardize long-term follow-up, CDC officials fear. Old and new patient information must be linked; thus, all new documents or laboratory specimens submitted to CDC must be accurately identified before coding. The CDC expects to spend more time on the telephone with state and local health officials who reported the cases.

Under the system, the records of AIDS patients are locked in CDC offices. Confidential information is also legally safeguarded under the Freedom of Information Act and Privacy Act. Neither the FBI or CIA have access to this information. However, a CDC notice in the *Federal Register* says that "records may be disclosed to health departments and other public health or cooperative medical authorities in connection with program evaluations and related collaborative efforts to deal more effectively with diseases."

Confidentiality is an issue with any disease, of course. But in AIDS research, investigators must inquire about intimate details of personal life. In many states, homosexuals can't serve in the Armed Forces, teach children, or raise their offspring. In nearly half the country homosexuality is illegal.

"In investigating this disease, we've needed to examine and understand gay life styles. We've had to probe. Every disease raises the problem of confidentiality. But this disease raises it much more," said Assistant Secretary of Health and Human Services Edward N. Brandt, Jr., M.D., at a recent meeting of state and local health officials in Washington, D.C.

Members of the gay community charge that the

CDC has distributed names of AIDS patients on three separate occasions.

The CDC defends each instance, saying that it was essential to AIDS research. Two occasions involved scientific studies: the New York Blood Center study showed that, despite suspicions, AIDS was not linked to the hepatitis B vaccine and the Los Angeles Health Department study first identified the connection between sexual contact and AIDS. The third occasion—in which names were released to major city health departments—was necessary to identify any duplication of AIDS cases, says the CDC.

VA Writes "No-Code" Guidelines

New rules distributed to the nation's 172 Veterans Administration hospitals no longer prohibit physicians from writing "no-code" or "do not resuscitate" orders on a terminal patient's medical chart.

This change brings VA hospitals into line with many of the country's private and public hospitals, which have permitted such orders during the past several years. Both the American Hospital Association and the President's Commission for the Study of Ethical Problems in Medicine recommend "no-code" policies for hospital staffs.

However, physicians may not "pull the plug" or otherwise hasten a patient's death, according to the guidelines. All other therapies—such as basic nursing care, analgesia, hydration, and oxygen—must be continued, they say.

The rules simply formalize procedures already in effect, say VA insiders. The VA's old policy said that "no-code" orders were "inappropriate and do not contribute to high-quality patient care." However, some VA physicians reportedly arranged with nurses and resuscitation teams to allow certain patients to die, or intentionally delayed resuscitation.

"Medical science has made us realize that in some instances the implementation of therapeutic decisions may not cure a patient's disease or disability or reverse a patient's course. In such cases, the physician is seen not as preventing death, but merely deferring the moment of its occurrence. The VA's commitment to high-quality care should not be so strong as to overwhelm a dying patient's decision," wrote VA Chief Medical Director Donald L. Custis, M.D. in the seven-page guidelines to hospitals.

The "no-code" policy applies only to terminally-ill patients whose condition is considered to be incurable or untreatable and whose death is considered imminent during the course of the current hospitalization. It also would apply in circumstances where resuscitation would be of no benefit to the patient and would only postpone death for several hours or days.

If legally competent, the patient must discuss his decision with the senior physician. If not competent, the family may offer its consent. Should the family disagree with the "no-code" order, no such order will be written. However, if the patient wants to exclude family members from the decision, he may appoint a disinterested third party to act in his behalf.

If the physician feels that he cannot in good conscience and sound medical judgment comply with the patient's or family's decision to withhold resuscitation, he should transfer the patient to another physician who can comply, the guidelines say.

Medical decisions regarding the patient's diagnosis should be reached by consensus of the medical treatment team. In larger hospitals, this means that the attending physician, housestaff, and consulting physicians such as oncologists and cardiologists will be involved. In small hospitals, the decision should be reached by the attending physician and the hospital's chief of service.

10,000 Comments on "Baby Doe"

State and county medical societies joined together with the national medical community in September in condemnation of the federal government's proposed "Baby Doe" regulations which would send federal investigators into nurseries in cases of suspected neglect.

As the regulation's public comment period finally came to a close, the AMA, the American Academy of Pediatrics (AAP), the American Hospital Association (AHA), and many state and local medical groups sent letters to the Department of Health and Human Services (HHS), attacking the regulations.

More than 70 physicians chose to respond personally to this HHS rule, writing letters urging Washington to stay away from bedside decision-making.

The regulation is an unprecedented attempt to apply federal legislation—under the 1973 Rehabilitation Act—to cases of selective non-treatment of neonates. In the government's first attempt at implementation, the rule was struck down in federal court under challenge by the AAP. Members of the medical community suggested that, if left unchanged, the regulation will again be brought before the courts.

Yet between medical groups there is little agreement about the major alternative: bioethical review committees. The AMA and American College of Obstetricians and Gynecologists (ACOG) believe that the committees should be voluntary and limited to hospital staff. AAP, the National Association of Children's Hospital and Related Institutions (NACHRI), and the Association of American Medical Colleges say, however, that the review committees should be mandatory and should include the outside community.

AMA and ACOG contend that review committees, if established, should be created voluntarily by local hospitals—not mandated by the federal government or hospital accrediting bodies. They should be internal committees that play an educational or advisory role, giving parents and physicians the chance to exchange information when making critical treatment decisions, these groups say.

In contrast, groups such as the AAP and NACHRI favor review boards that are mandatory, hooked up to a hospital's participation in Medicare and Medicaid funding. Review committee members would include not only the hospital staff, but members of the clergy and outside community as well. Although the committee's

role would also be advisory, it would assume somewhat broader duties, such as recommending a new hospital policy or reviewing infant care records.

Other medical groups have chosen not to endorse either position, instead adopting models that lie somewhere between either extreme. Still others remain on the periphery, saying they agree "conceptually" with one plan or the other but refusing to endorse specific details of any plan. Some hope that a vague position will give them more time to discuss the issue with their members; others expect another chance to comment if the government pursues this plan further.

Already, 20% of the nation's hospitals have formal review mechanisms, 7% have informal review mechanisms, and 19% have plans to establish one or the other, according to a recent AHA survey. Some hospitals are setting up ethics committees specifically for newborn intensive care units.

There is a risk in the alternatives: by offering review committees as an option, the medical community may find itself saddled with both the committees and the more invasive "Baby Doe" regulations. The review committees, if adopted by the government, could be molded into forms scarcely recognizable by their original proponents. Furthermore, the adoption of the review committee concept—if integrated into the "Baby Doe" regulation—could be tougher to fight on legal grounds.

HHS must now sort through more than 10,000 comments, petitions and postcards stacked in tall piles in one Washington office.

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announcements

CALENDAR OF MEETINGS

NATIONAL

Dec. 1-2	American Association of Senior Physicians—Best Western Inn, Chicago
Dec. 3-6	American Society of Hematology—San Francisco Hilton
Dec. 4-6	Society for Ear, Nose and Throat Advances in Children—San Diego
Dec. 7-10	Cervical Spine Research Society—The Breakers, Palm Beach, Fla.
Dec. 8-10	National Conference on Advances in Cancer Therapy (American Cancer Society)—New York
Dec. 14-18	American Psychoanalytic Association—Waldorf Astoria, New York
Dec. 17-31	Sixth Annual Winter Seminar, Selective Reviews in Medicine (sponsored by Dade County, Fla., Medical Assoc.)—Aspen, Colo.
Jan. 16-20	Hawaii Gastroenterology and Hepatology Conference (sponsored by Honolulu Med Group Research and Education Foundation)—Mauna Kea Beach Hotel, Hawaii
Jan. 17-21	American Association for the Study of Headache—Marriott's Camelback Inn, Scottsdale, Ariz.
Jan. 19-21	Southern Society for Pediatric Research—Hilton Hotel, New Orleans
Jan. 21-25	Immune Consequences of Thermal and Traumatic Injuries (sponsored by Am Burn Assoc and Univ of Utah)—Snowbird Resort, Snowbird, Utah
Jan. 22-27	NAFA CME Ski Meeting (sponsored by Nevada Acad of Family Physicians)—Sahara Tahoe Hotel, South Lake Tahoe, Nev.
Jan. 27-29	Midwinter Radiology Conference (sponsored by Los Angeles Radiological Society)—Century Plaza Hotel, Los Angeles
Jan. 29-Feb. 3	American College of Medical Imaging—Sahara Tahoe Hotel, Lake Tahoe, Nev.
Jan. 29-Feb. 4	Post Conference Seminar (sponsored by Los Angeles Radiological Society)—Mauna Lani Bay Hotel, Kohala Coast, Hawaii

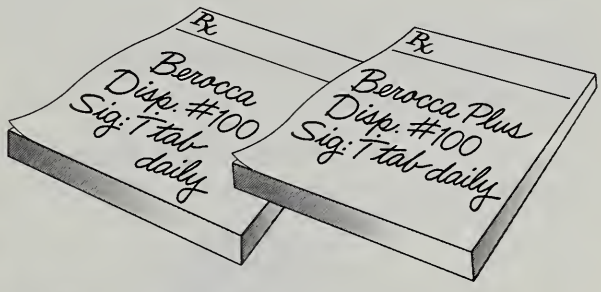
ERRATUM

In the article "The Effects of Low Doses of Ionizing Radiation" by E. W. Webster, Vol. 76, No. 8, August 1983 in Table 11, page 508, the number *59* for expected cancer in Hiroshima should be changed to *259*. The S.M.R. as published is correct.

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1. Dixon RE: *Ann Intern Med 89*(Part 2):749-753, Nov 1978. *2.* Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease,* edited by Goodhart RS, Shils ME; Philadelphia, Lea & Febiger, 1980, p. 1114.

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IMPORTANT NOTICE

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IN TENNESSEE

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Continuing Education Schedule

Dec. 3-4 Update in Anesthesiology and the Benjamin Howard Robbins Memorial Lecture

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37202, Tel. (615) 322-4030.

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Continuing Education Schedule

Memphis

Dec. 3-4	ENT for the Primary Care Physician
Feb. 2-3	Surgical Ostomies
Feb. 25-26	Advances in Radiology
March 17	Update in Emergency Medicine
March 18-23	17th Annual Review Course for the Family Physician
June 11-13	Family Medicine Update—New Orleans
June 14-16	Cardiology Update—New Orleans

Knoxville

June 11-13	Expert Testimony Workshop—New Orleans
June 14-16	Otolaryngology for the Primary Care Physician—New Orleans

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

EAST TENNESSEE STATE UNIVERSITY

Continuing Education Schedule

Jan. 7-13	Medical Updates V: A Review of Recent Advances in Medicine—Park City, Utah
Jan. 19	Controversies in the Diagnosis and Early Management of Breast and Colon Cancer—ETSU
February	School Health VI—ETSU
April 27-29	4th Annual 121st U.S. Army Reserve Command Medical Seminar—Gatlinburg

For information contact Sue Hutchinson, M.P.H., Program Coordinator, Office of CME, ETSU Quillen-Dishner College of Medicine, P.O. Box 19660A, Johnson City, TN 37614, Tel. (615) 928-6426, ext. 204.

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UNIVERSITY OF KENTUCKY

Continuing Education Schedule

Dec. 16-17	Peripheral Vascular Disease Symposium
Feb. 19-24	15th Family Medicine Review—Session I
March 9-11	Advanced Cardiac Life Support Courses

For information contact Frank R. Lemon, M.D., Continuing Medical Education, College of Medicine Office Building, University of Kentucky, Lexington, KY 40536, Tel. (606) 233-5161.

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Dec. 1-3	2nd Comprehensive Breast Disease Symposium. *Credit:* 20 hours AMA Category 1. *Fee:* $300.
Dec. 8-10	Pediatric Imaging Seminar. *Credit:* 20 hours AMA Category 1.

For information contact Postgraduate Course in Medical Sonics, 300 S. Hawthorne Road, Winston-Salem, NC 27103, Tel. (919) 748-4505.

OF SPECIAL INTEREST

AMERICAN CANCER SOCIETY

Dec. 8-10	National Conference on Advances in Cancer Therapy—New York, N.Y. *Credit:* 16.5 hours AMA Category 1.

For information contact Nicholas G. Bottiglieri, M.D., Advances in Cancer Therapy Conference, American Cancer Society, 777 3rd Ave., New York, NY 10017, Tel. (212) 371-2900.

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER

Dec. 7-9	Neurology for the Non-Neurologist—The Westin Hotel, Chicago. *Credit:* 20 hours AMA Category 1.

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AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

Dec. 5-7	Problems in the Diagnosis and Management of Breast Cancer—Scottsdale, Ariz. *Credit:* 19 hours AMA Category 1. *Fee*: $575.
Jan. 23-27	Tumorous Conditions of the Bones and Soft Tissues—San Diego. *Credit:* 38.5 hours. *Fee*: $650.
Jan. 30-Feb. 3	Current Methods in Blood Banking and Immunohematology—Lake Buena Vista, Fla. *Credit:* 31.5 hours. *Fee*: $650.
Feb. 6-10	Advanced Microbiology: Recent Developments and New Frontiers—Dallas. *Credit:* 32 hours. *Fee*: $625.
Feb. 6-10	Leukemias and Lymphomas—Charleston, S.C. *Credit:* 30 hours. *Fee*: $650.
Feb. 13-17	Laboratory Tests for the Diagnosis of Autoimmune Diseases—San Antonio, Tex. *Credit:* 24 hours. *Fee*: $550.

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Tonsillectomy Without Hemorrhage

MIKE DuBRULE, M.D.

Death still occurs following tonsillectomy with a reported incidence of from one in 3,000 to one in 27,000.[1,2] These well-known figures play an important role in shaping clinicians' thinking about the value of the operation, considering that it is a procedure done for a benign disease that will eventually resolve itself in most patients given enough time and medicine. An analysis of the causes of death from tonsillectomy may show how an improved technique can substantially reduce this risk of death, yet so many techniques in surgery vary largely with the surgeon's personal preference that the marginal value of an advanced technique over satisfactory existing techniques may easily be overlooked. Most recently, a new technique of tonsillectomy has been described, which warrants attention. This method relies on Teflon insulated suction coagulation already available in most hospitals, to perform a complete tonsillectomy in a nearly bloodless field. This method is first reported in the otolaryngologic literature by Goycoolea et al of Chile.[1] His study is reproduced with slight modification of the original method.

Method

After attainment of a surgical plane of anesthesia with an oral tracheal tube, the mouth gag is inserted, and the tonsil is then grasped at the superior pole with a curved Allis tenaculum and retracted medially. The overlying anterior pillar mucosa is cauterized, using only the Valley Lab suction coagulator Lectrovac E 2505-10, which initiates a cutting process that continues directly through the mucosa without any extravasation of blood and leads to the rapid separation of the tonsil from its muscular bed. The coagulator is usually kept at a setting of 40 or 35. Continued retraction medially on the tonsil continues to expose the correct surgical plane, identifying the muscles directly. This plane is easy to see, since the field is entirely bloodless. Continuing caudally, the inferior pole is cauterized. This dissection proceeds with continuous sweeping motions of the electrocautery suction from superior to inferior poles until the posterior pillar is reached. Large blood vessels will frequently be encountered, but since the tissue around them is virtually melting away, they can be seen and individually coagulated by direct application of the same instrument. When the posterior pillar mucosa is reached, care is taken not to plunge through too quickly, thereby avoiding electrical burns to the pharynx. The tonsil is easily removed and the field may be rapidly inspected for the presence of bleeding vessels. Usually there are none.

Results

Twenty-five consecutive patients have undergone tonsillectomy with this technique. In some cases, of course, tonsillectomy has been combined with other procedures (adenoidectomy and PE tubes). There was no early hemorrhage, respiratory difficulty, or requirement for delayed

From the Jackson Clinic, Jackson, Tenn.
Reprint requests to Jackson Clinic Professional Association, 616 W. Forest Ave., Jackson, TN 38301 (Dr. DuBrule).

extubation postoperatively due to "oozing." In only one case was bleeding brisk enough to obscure the operative field at any time, or to reach the suction tubing by being greater than 2 to 3 cc of blood loss per tonsil. In this patient, the estimated blood loss was still markedly reduced to approximately 20 cc for the operation. A 36-year-old white woman who had had incisional drainage of a peritonsillar abscess two weeks earlier had an estimated blood loss of 5 cc (there was enough blood loss to stain the throat pack, which is often not the case). Furthermore, this patient had already had a previous peritonsillar abscess several years before, and had been advised to have a tonsillectomy, though she had elected not to do so. Such cases typically would involve the loss of 400 to 500 cc of blood. Moreover, "routine" tonsillectomies performed by the dissection and snare, guillotine, or spatula-cautery technique typically involve blood loss of at least 100 to 200 cc by the time the bleeding has stopped. It is apparent, therefore, that while this technique does not eliminate the problem of delayed postoperative bleeding, it does prevent the problems associated with hemorrhage at the time of surgery.

Discussion

At least 20 million myringotomies and tubes have been inserted in the United States over the last 25 years without even a single reported death related to anesthesia.[2-4] This is due in part to the safety of the unviolated airway[5] and to the typically brief duration of the procedure. Suction-cautery tonsillectomy can usually be performed in five minutes or less of surgical anesthesia, including the time spent on hemostasis. Only two instruments are used in addition to the mouth gag. With older techniques, a typical tonsillectomy performed in the extracapsular plane takes a careful surgeon 10 to 15 minutes per pair of tonsils, involves the exchange of instruments, such as snares, which can malfunction or become dislodged in the patient's pharynx, and requires coordination with the nurse providing the suctioning. Then, after removal, even more time may be spent in observing the tonsillar fossa to control persistent hemorrhage with either the ligature or cautery methods. Finally, the decision as to when to extubate the patient must be made by the anesthesiologist, who being uncertain of the status of the airway, must assess the pharynx himself.[6] Secondly, bleeding within the first two to three hours presents the greatest risk of aspiration or respiratory obstruction. Such bleeding has not been observed in my series or in Goycoolea's larger series of patients,[1] and when it does occur, is thought to be due to incomplete removal of the tonsillar tissue. Certainly this problem is much less likely when the operative field remains completely dry during the dissection.

Finally, while Goycoolea et al[1] had no cases of delayed hemorrhage, I had two. They occurred approximately one week after surgery, and involved the rapid loss of several hundred cubic centimeters of blood which then slowed spontaneously to a trickle. This allowed us to bring the patient back to the operating room for general anesthesia prior to coagulation of the tonsillar fossa without any aspiration of blood. Such bleeding episodes are thought to result from the reopening of a thrombosed blood vessel after sloughing of the eschar,[5] but may actually represent microtrauma to proliferating blood vessels in the repair of the tonsillar fossa. Although this can be a life-threatening problem, it is not going to be nearly as severe as it would be in a patient who is already anemic from recent blood loss associated with T & A.[7]

This is of the greatest importance to children; in one study,[8] 18% of the children were noted to lose as much as 10% of their blood volume. Loss of 160 cc of blood would, in a typical 20-kg child, account for such loss, which can initiate shock. This new technique has offered me the opportunity to perform this operation with what I feel is a substantially increased margin of safety.



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Nursing Home Discharges in Clinical Practice

JAMES S. POWERS, M.D.

Introduction

The elderly constitute an increasing proportion of the practice of internal medicine, and utilization of the nursing home as a transitional convalescent facility may be on the increase. Successful clinical management of discharged nursing home patients demands close cooperation of patient, family, home health care personnel, and physician. This series focuses on characteristics of elderly patients discharged from the nursing home, with particular emphasis on their clinical follow-up.

Case Reports

CASE NO. 1. A 75-year-old woman who lived with her husband developed progressive signs of forgetfulness, inappropriateness, and anxiety over a five-year period. She also suffered from occasional dyspnea and episodic numbness and weakness due to vertebral basilar insufficiency. Over a several month period she was visited by a physician every one to two weeks for depression and attacks of angina, and was once hospitalized briefly for a presumed subendocardial myocardial infarction. After discharge, she was even more confused due to antidepressant and anxietiolytic medication, and was frequently tearful. Although her family arranged for home care with a visiting homemaker service, her husband's complaints about outside interference in the home, as well as his inability to observe her in the evening, prompted the family to place her in a nursing home.

Her physical examination was remarkable only for a senile tremor, some unsteadiness of gait, and lower extremity venous insufficiency. She appeared unmotivated and tearful. Her laboratory evaluation was negative. During her nursing home stay her husband made it clear that he did not like his wife away from home; in particular her missed their sexual relationship. Home visits were begun approximately one month after admission, and the patient was observed to steadily increase in motivation as well as strength and ability to perform activities of daily living. Two months after admission to the nursing home, she was discharged home, where she was visited by a nursing service for approximately two months, after which this was discontinued. She has continued to do well six months after discharge and has been seen in the office approximately monthly, mostly for reassurance and medication refills. Her husband has been quite pleased with her progress.

From the Primary Care Center, Division of General Internal Medicine, Vanderbilt University School of Medicine, Nashville.

Reprint requests to Primary Care Center, Division of General Internal Medicine, Vanderbilt University Medical Center, Nashville, TN 37232 (Dr. Powers).

COMMENT: The reversibility of this patient's confusion is remarkable. Certainly she may have suffered a stroke in a clinically nonapparent region of the brain, which then resolved during her nursing home stay. In addition, depression may have explained some of her symptoms. Having a lot of supportive care and reassurance, as well as a proud and independent husband, allowed this woman to return home to self-care.

CASE NO. 2. A 78-year-old man who lived with his wife had a history of right hip surgery, transurethral resection of the prostate, hypertension, and chronic obstructive pulmonary disease. He developed falling spells and was hospitalized briefly with a diagnosis of uncontrolled hypertension, probable transient ischemic attacks, and pseudobulbar palsy. Because his wife was not able to care for him at home, he was admitted to the nursing home.

His physical examination was unremarkable except for hyperreflexia, hesitating speech, and a 20 mm orthostatic drop in systolic blood pressure, with a baseline systolic pressure of 140 mm Hg. His laboratory evaluation was negative except for a right bundle branch block on electrocardiogram. Combination antihypertensive medication consisting of reserpine and a diuretic was gradually tapered with elevation of systolic blood pressure to 190 mm Hg. Although he still had a 20 mm orthostatic drop in blood pressure, he felt well enough to use a walker, and had no more falling spells. After two months in the nursing home, both the patient and his wife strongly requested that he be discharged home with the services of a visiting nurse. After several months, the nurse visits were discontinued. He has been seen in the office approximately every three months, and although he has fallen occasionally, he now walks with the use of only a cane. Both he and his wife have been very pleased with his outcome.

COMMENT: This patient and his wife are both fiercely independent. The patient's nursing home placement was probably related to overmedication, although the possibility that he may have been recovering during his nursing home stay from recent stroke-related complications cannot be excluded. Detailed evaluation of his orthostatic hypotension was not attempted.

CASE NO. 3. An 84-year-old widow had diabetes, a history of stroke, recurrent urinary tract infections, myocardial infarction, and pacemaker insertion for sick sinus syndrome. She lived alone in an apartment with assistance from family and friends, but was hospitalized several times because of poor diabetes control and generalized weakness.

Following one of her hospitalizations she was admitted to

the nursing home, where, on examination, she was found to have mild residua of an old stroke. Her laboratory evaluation was unremarkable. Over a two-month period she gradually increased in strength, and helped care for other patients around her. At her and her family's request she was discharged for a trial of living alone again.

Over a year of follow-up, she initially showed some lethargy and signs of decreased interest in outside activities, and at times her diabetes was poorly controlled. She was also hospitalized briefly because of chest pain without infarction, but currently she is active, being seen approximately every two months, and adamantly demands to continue living alone with visiting nurse involvement.

COMMENT: This patient is a very strong-willed woman with good family support, who is now most cooperative with her outpatient management and is quite pleased with her progress.

CASE NO. 4. An 87-year-old widow who lived at times with various family members had hypertension, degenerative joint disease, and cataracts. Over a period of several years she developed confusion, and when the family experienced difficulty in caring for her daily needs, they involved a home health agency in assisting with her care, but a good rapport never developed. The family was difficult to please and changed agencies quite frequently. Comments from visiting nurses stressed the poor environment and social conditions under which the patient lived. She was then admitted to the nursing home, and over a five-month period gradually improved in her mental status and ability to care for herself. Both her physical examination and her laboratory evaluation were unremarkable. Because of financial concerns the patient was discharged back home to the family at their request. Despite attempts by several home health agencies to care for her, in addition to physician home visits and frequent telephone calls, the patient gradually deteriorated to her original status over a six-month period. Living conditions were poor, and the patient was often without medications except for samples that were provided intermittently. Several months after she suffered a stroke and was hospitalized briefly, she moved in with another relative, in another town, where she developed a relationship with a physician. Her clinical status then stabilized.

COMMENT: In this situation, the patient's family appears to have been the main concern, although when questioned she had no preference regarding either the nursing home or residence with family members, and she generally acquiesced to her family's decisions. We may suspect that financial motivations on the part of the family led to their neglect of the patient. Although the situation is now stabilized, and the patient's overall level of functioning was greatly improved with supportive care, even active intervention on the part of visiting nurses and the physician could not prevent her initial deterioration after discharge from the nursing home.

CASE NO. 5. A 70-year-old widow, who lived alone and saw physicians rarely, had a history of diabetes, myocardial infarction and poorly controlled hypertension. She was hospitalized because of confusion and found to have posthepatic cirrhosis, possibly with an early hepatic encephalopathy. She was admitted to the nursing home and over a seven-month period did extremely well except for an occasional transient ischemic attack. Her physical examination was unremarkable and her laboratory evaluation showed eventual return to normal of her liver function tests. Her family was difficult to deal with, constantly complaining about the cost of medication, and requesting the opinions of other physicians. At the family's request, she was discharged home to live with her son.

The patient had poor medical follow-up, with the family continually requesting refills of medications over the phone. Approximately five months after discharge, the patient had a stroke and was hospitalized briefly. Following discharge, she continued with irregular medical follow-up and shortly thereafter was readmitted to the nursing home with poor diabetic control and evidence of digitalis toxicity. Her mental status had deteriorated since her previous examination, but over the next several weeks she gradually improved in her overall level of functioning and the family ceased interfering with her care. Unfortunately, the patient fell out of bed while in the nursing home and fractured her pelvis, but the fracture healed nicely and she was able to resume her previous level of activities.

COMMENT: The family was a major interference in the optimal care of this patient. Certainly motivations related to guilt and finances appear most important in understanding this family's behavior. Only with close medical supervision could the patient function at her maximum level.

Discussion

Although follow-up of patients discharged from the nursing home is often left to the practicing physician, little is written in the literature regarding the special features and needs of such patients. Some general observations may be made from the follow-up after discharge from the nursing home of this series of five patients.

Improvement in function while in the nursing home and success after discharge certainly must include not only patient fortitude and motivation, but also strong family support. Although close medical follow-up is essential in maintaining patients at home, nurse involvement and physician input alone cannot prevent failure when family support is poor. Factors that correlate highly with successful discharge home from the nursing home within three months of admission include married status, improved capacity for activities of daily living, and younger age.[1,2] It is hard to deny the positive influence of environmental stimulation and careful attention in improving the functional status of elderly patients.

Both guilt and financial concerns seem to be important motivators of family responses to nursing home care. In two of the cases discussed here, patients returned to suboptimal environments, with poor medical follow-up and resultant complications. These factors, which included ne-

glect, constitute a form of family abuse of the elderly.[3]

Approximately 15% of residents admitted to a nursing home are discharged home, and another 6% leave against medical advice; they often return to the nursing home, or do poorly on the outside.[4] Of those patients discharged from the nursing home, approximately 33% return home because of functional improvement, 22% because of patient or family unhappiness with nursing home placement in general, and 19% because of financial concerns.[5]

Economic factors have fostered earlier discharge from the hospital, with an anticipated greater use of the nursing home as a temporary care facility for patients with potentially reversible illnesses.[6] Additionally, there is a movement toward deinstitutionalization of patients, with an attendant increase in home health care. Home care is becoming a greater factor in the care of the elderly, but is effective only with active patient-family and health personnel involvement. It behooves physicians to be aware of factors involved in the care of the increasing numbers of elderly patients sure to be in need of their services in the near future.

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APRIL 1984

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11 TMA 149TH ANNUAL MEETING Hyatt Regency Hotel—Knoxville	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	NOTES				

Special Item

The Tennessee Cancer Reporting System Act of 1983

WILLIAM H. HARTMANN, M.D.

Governor Lamar Alexander has recently signed into law the Tennessee Cancer Reporting System Act of 1983 to provide a *statewide cancer reporting system.* This article will review some of the history that led to the passage of this Act, describe the Act, and briefly review the current state of cancer reporting systems in the United States.

In 1981 a joint resolution was passed by the Legislature creating a committee to study the Tennessee central cancer registry project. The members of the committee consisted of Rep. Joe Bell, Rep. Nathan Ford, Sen. Ernest Crouch, Sen. Curtis Person, Jr., Sen. Pete Springer and Rep. Paul Starnes, chairman. A direct result of their deliberations was the passage of the Cancer Reporting System Act.

In 1980 the Tennessee Health Planning and Resources Development Agency, with input from the Tennessee Division of the American Cancer Society and the Tennessee Department of Public Health, members of the Departments of Pathology, Preventive Medicine and Community Health of Vanderbilt University Medical Center, and members of the Departments of Community Medicine at the University of Tennessee and East Tennessee State University School of Health, proposed as a feasibility project a Tennessee central cancer registry project. The report stated that ". . . Cancer mortality data (based on deaths due to the disease) are collected routinely by the State Center for Health Statistics and published annually. While the cancer mortality data have been used as a health status indicator by various planning agencies, they give neither a complete picture of the problem nor are they of much value in assessing morbidity and consequent needs for treatment and preventive measures. To better plan methods of treatment and prevention for this disease, cancer researchers, physicians, environmental health scientists, and health planners need more complete, current, and reliable data on the occurrence of cancer according to the kind of cancer and the residence and occupational history of the victims."

In response to this need for better information on cancer, a large number of states have developed statewide cancer registries or cancer recording systems. These systems routinely collect data on cancer patients, usually as a minimum the site and classification of each cancer and the race, sex, age and residence of the patient. When properly organized, these efforts have been valuable in understanding the problems of the disease in general and have been particularly valuable in defining problems of cancer for a state.

The agency went on to define a cancer reporting system as being "primarily designed to monitor incidence or occurrence of the disease."

They further stated that a Tennessee central cancer reporting system based on the entire population of the state of Tennessee could provide:

- Information concerning the magnitude and nature of the cancer problem in the state including data on trends.
- New information about environmental influences on cancer incidence, including information that might be linked to hazardous waste disposal or occupational risks. By pinpointing incidence differences in various geographic areas and cultural groups, clues

From the Department of Pathology, Vanderbilt University School of Medicine, Nashville.

Reprint requests to Department of Pathology, Vanderbilt University School of Medicine, C-3322 Medical Center North, Nashville, TN 37232 (Dr. Hartmann).

concerning environmental hazards have been found.

- Benefits for individual physicians and patients in obtaining information on the effectiveness of specific treatments for patients with specific kinds of cancer. New approaches to cancer treatment and information by referral centers might also be generated from data collected by the proposed cancer reporting system.
- Identification of special populations and groups throughout the state who are suspected to be at high risk. When warranted, this would permit targeting of areas for intensified screening, which would improve the capacity for early detection and early treatment, and aiming and implementing educational efforts more accurately for individuals and agencies involved in the cancer problem.

The data base so established would be available to those interested in cancer research and treatment throughout the state and could stimulate additional research in other cancer related areas by people with specific interests. The creation of such a system would be of enormous value in planning for the needs in our population created by patients with this most feared and costly disease—a need that claims the lives of approximately 8,000 Tennesseans annually and impairs the health of thousands more.

As a result of the efforts of many individuals, and with the support of numerous organizations in the state, these efforts have culminated in the recently enacted law, the intent of which is to "require the establishment and maintenance of the statewide cancer reporting system for the State of Tennessee."

There are 13 sections to the Act, with section 4 stating that all hospitals and laboratories within the state shall report to the state department of public health, on forms supplied by the department, information on cancers and certain specified precancerous and tumorous diseases. The terms (e.g., cancer, precancerous diseases, tumorous diseases, hospital and laboratory) are all defined in section 3, and are reasonably standard definitions. Sections 1 and 2 introduce the Act.

Section 5 states that the reporting of cancer and related disease is required, and the Commissioner is empowered to promulgate such rules and regulations as are necessary to meet the charge in this Act.

Section 6 requires the Commissioner of Public Health to appoint an advisory committee of nine members consisting of a biostatistician, a cancer registrar, an epidemiologist, an oncologist, a pathologist, a radiologist, the Commissioner or his designee, and two additional members.

The committee is to advise the Commissioner on all matters relating to the administration of the Act, including but not limited to the development of the reporting form, design of the data system, controls to preserve patient confidentiality, training for participants in the system, uses to be made by the data developed, and any other matters requested by the Commissioner.

Sections 7, 8, and 9 address the issue of patient confidentiality and use of the data.

> *SECTION 7.* All data obtained from the reports required by this Act are for the confidential use of the Department and persons that the Commissioner determines are necessary to carry out the intent of this Act. Information that could possibly identify individuals whose medical records have been used for collecting data may not be included in materials available to the public.
>
> *SECTION 8.* Compliance with this Act by hospitals, laboratories, cancer treatment centers, or physicians, or their officers and employees, shall not be construed as a violation of, or otherwise acting in derogation of, their responsibility for maintaining the confidentiality of patient information.
>
> *SECTION 9.* No patient whose medical records are the subject of data collected in the reports required by this Act shall be subjected to any medical examination or case supervision by the Commissioner or his agents for the purposes of this Act.

Sections 11 and 12 are "housekeeping" provisions, and section 13 states the Act will take effect on July 1, 1983.

Tennessee, by this Act, joins 32 other states, the District of Columbia, and Puerto Rico in requiring the reporting of cancer and related diseases. Cancer, which has been a reportable disease in Montana since 1920, is now reportable in Tennessee and all of our bordering states.

The Tennessee Department of Health and Environment has begun planning for the implementation of this Act. As always, the Department welcomes input from the physician community concerning this new program, the success of which will require the cooperation and good will of all physicians practicing in the state of Tennessee. The need for accurate and detailed information with reference to the development of cancer by the citizens of the state of Tennessee is necessary and vital to the best interests of all.

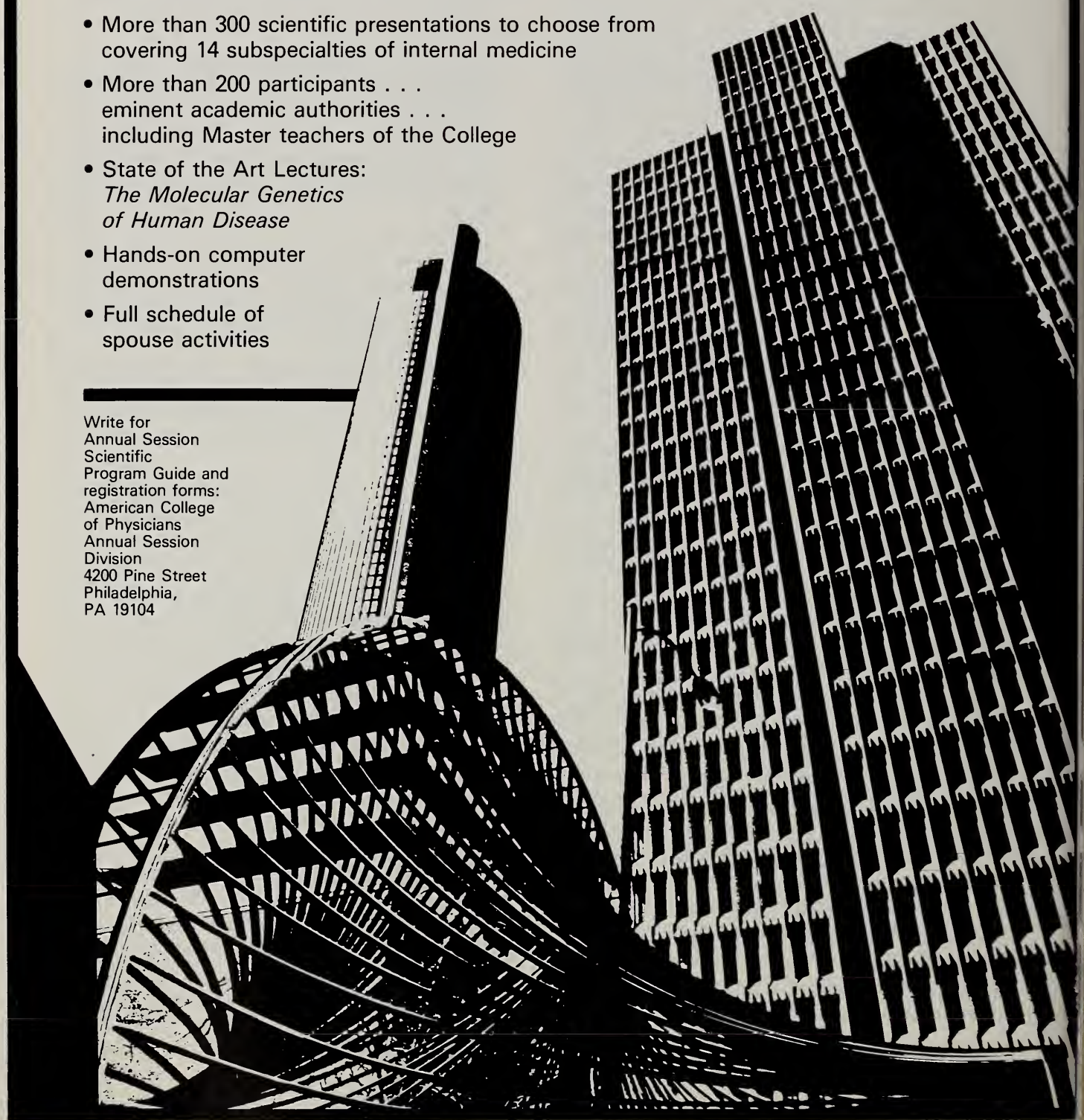
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The Tennessee Cancer Reporting System

The Tennessee Cancer Reporting System Act of 1983 requiring the reporting of cancer and other specified precancerous and tumorous diseases to the Tennessee Department of Health and Environment became effective on July 1, 1983. Hospitals and laboratories, as defined in the legislation, will be required to report information deemed necessary and appropriate by the commissioner on forms supplied by the department. The confidentiality of all data obtained from the reports is insured by the legislation.

The reports are required to begin no later than Jan. 1, 1985. The next several months will be used to look at other state systems, to plan the type of reporting system to be implemented in Tennessee, to design forms to collect the data, to design computer systems to handle the data for editing, analyzing and dissemination, to educate and train those individuals who will be reporting, and to implement the reporting system. The department intends to conduct a pilot project before the system is implemented statewide.

In order to make effective decisions regarding the planning and implementation of a reporting system, the commissioner has appointed a Cancer Reporting Advisory Committee as called for in the legislation. The appointees and positions they hold are as follow:

Biostatistician—William K. Vaughn, Ph.D.
Vanderbilt University, Nashville
Cancer Registrar—Sue Sumner
Methodist Hospitals, Memphis
Epidemiologist—Alan L. Bisno, M.D.
UT School of Medicine, Memphis
Oncologist—R. Bruce Avery, M.D.
Knoxville Hematology-Oncology Associates
Pathologist—William J. Fidler, M.D.
Duckworth Pathology Group, Memphis
Radiologist—Burton P. Grant, M.D.
Parkview Hospital, Nashville
Commissioner James E. Word's Designee—
Sarah H. Sell, M.D.
Tennessee Department of Health and Environment, Nashville
Commissioner's Appointee—
William H. Hartmann, M.D.
Vanderbilt University, Nashville
Commissioner's Appointee—
Toni H. Newport
Oak Ridge Associated Universities

The committee held its first meeting on Sept. 14, 1983; Dr. William Hartmann was elected chairman by the group. In order to function more efficiently, three subcommittees were appointed. The System Design and Development Subcommittee will be chaired by Dr. William Vaughn. The Implementation and Training Subcommittee will be chaired by Toni Newport. A Rules and Regulations Subcommittee will be appointed at a later date.

The System Design and Development subcommittee will meet in October to begin designing Tennessee's reporting system.

If anyone with an interest in this area has suggestions, comments, or ideas, feel free to contact any member of the advisory committee or Donna Weber, Health Practitioner, Center for Health Statistics at (615) 741-2630.

From the Tennessee Department of Health and Environment, Nashville.

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 28-year-old woman was admitted to St. Thomas Hospital for evaluation of hematuria. She had no history of antecedent cardiovascular disease or previous hospitalizations, though she had been aware of a slow pulse rate since childhood. There was no family history of cardiac disease. She denied syncope or near syncope, and had no history of chest pain, orthopnea, paroxysmal nocturnal dyspnea or edema, but had dyspnea with moderate exertion.

Her weight was 224 lb, with a height of 5 ft 7 in. Her blood pressure was 128/68 mm Hg and pulse 50/min. The precordium was quiet, without audible rubs, murmurs or gallops, and a chest film showed no abnormalities. An electrocardiogram was obtained (Fig. 1).

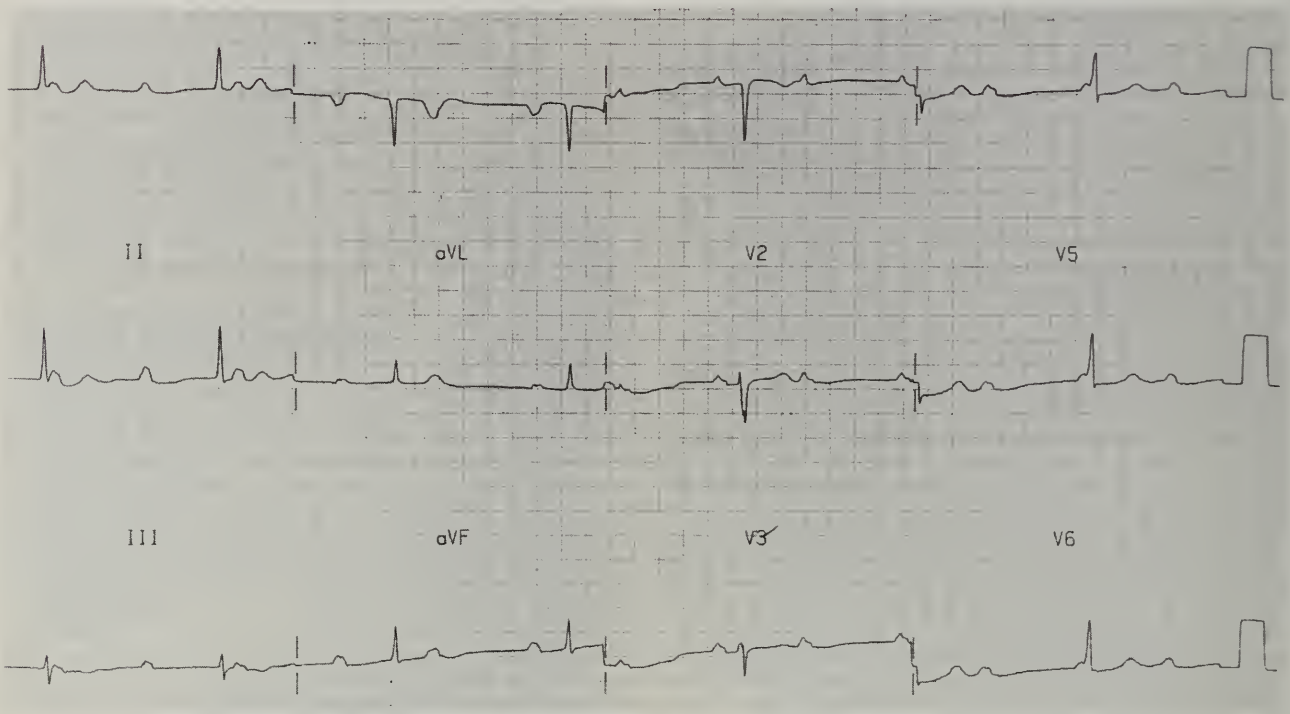


Figure 1

Discussion

The tracing shows a slightly irregular atrial rhythm at a rate of 80/min, with a regular ventricular rate at 43/min. The atrial and ventricular rates are dissociated and no P waves are conducted to the ventricle. The QRS morphology and duration are normal, but there are minor ST-T changes, with sagging of the ST segments in the lateral precordial leads. The lack of association between atria and ventricles is due to third degree heart block. In a young woman with history of slow heart rate, lack of any evidence of systemic or cardiovascular disease, narrow QRS complex, and cardioacceleration with exercise,

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

this third degree heart block is probably congenital.

Congenital complete heart block has a frequency of about 4 in 10,000 births;[1] it appears to be more common in offspring of mothers with connective tissue disorders,[2] and although it has been associated with a large number of cardiac anomalies, it commonly occurs in people with normal hearts. It may follow an inherited autosomal dominant pattern in a minority of patients.[3,4] The overwhelming majority of people with congenital complete heart block demonstrate evidence of block above the His bundle associated with a narrow QRS complex. These patients usually retain the capacity to increase their heart rates with exercise (as exercise induces withdrawal of vagal tone),[5] which suggests a good prognosis.

Long-term follow-up of patients with congenital complete heart block shows that many of these people, perhaps the majority, do well with advancing age and do not require pacing,[6] but the remainder may develop lethal Stokes-Adams syncope or arrhythmias at any age. Decreased ventricular compliance and diminishing stroke volume with advancing age is often a complicating factor. This may especially be seen in the presence of ischemic heart disease or hypertension, and may cause significant impairment of cardiac output. Marked ventricular slowing during sleep has been reported in some of these patients, and the slow rate may predispose to ventricular and junctional ectopic beats.[7] This may be evaluated by Holter electrocardiographic monitoring.

Our patient had increase of heart rate to 120/min with treadmill exercise. Her hematuria was due to cystitis. She has had no cardiovascular symptoms following admission.

CONCLUSION: Third degree (complete) heart block, probably congenital.



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Case Management in the Elderly

JAMES A. GREENE, M.D.

The increasing number of older people raises a variety of health care issues, of which I will mention several.

Although the majority of the aged require no assistance with day to day living, when problems do develop they are more likely to involve more than one area, i.e., physical and mental health, social and economic factors, and meeting of basic daily needs. The complex and chronic nature of illness and disability in the elderly, then, requires a system of care that is responsive and that can be varied as needs change. There must be provision for the assessment, monitoring, and mobilization of a wide spectrum of resources to allow for continuity of care. Case management is a concept whose time has come.

The role of rehabilitation in care of the aged has been largely overlooked. The aged must be viewed with a positive therapeutic approach, and rehabilitation must be recognized as a major medical service central to improving and maintaining the level of functioning of the impaired elderly. This will require expansion of such services as well as increased referral and utilization.

The general hospital, as the key community service for the aged, is in a strategic position in the health care system to institute a variety of new roles, such as providing, among other things, geriatric assessments, home services, and health education.

The hospital-like characteristics of the long-term care facilities is reinforced by a public policy that links reimbursement to medical/nursing needs and to the life safety code, but has only token requirements for meeting the psychosocial needs. When one-third of the aged in these facilities have resided there for from one to three years, and another third for three or more years, something is grossly inappropriate. We must have a wider array of options for residential care, as nursing home care is appropriate for certain needs. Community residential care is appropriate for others. Both should be available for us when needed.

Eighty percent of all services to the elderly are provided by the family. This includes care for many chronic health problems. To date, the family has received little support for the mainstream of public health. To preserve the family role and its continued involvement in the provision of services, we must continue to develop services to prevent family breakdown. Respite care, hospice care, and home health and homemaker services are essential in this task.

Expansion of health insurance to meet the need for these services must be established, since currently only the more expensive care, i.e., 24-hour care in a general hospital or nursing home, is reimbursable. Changes appear to be not only necessary but inevitable.

Dr. Greene is in the private practice of psychiatry and geriatrics at 310 Blount Professional Bldg., Knoxville, TN 37920. He is a member of the Tennessee Medical Association Long Term Health Care Committee.

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Commercialism in the Practice of Medicine

In the last two years, a great deal has been written about the forces of commercialism that surround the delivery of health care and how these forces may endanger the art and professionalism of the practice of medicine. Some even predict that for-profit corporations will take over the entire hospital field, either through ownership or management, by the end of this decade.

The threat of commercialism in medicine has been manifest since the organizational meeting of the AMA in 1847. This threat has always been one of the targets of AMA efforts to preserve medicine as a profession.

Medicine has waged a constant war with the commercialism of fee splitting, unnecessary services, quackery in medicine as well as among cultists, rebates from optical companies to ophthalmologists, ownership of drug stores to which physicians steer their patients, and so forth. These forms of commercialism have subsided somewhat, but commercialism continues to appear in other forms.

AMA has fought the "corporate practice of medicine," whether by lay groups or nonprofit corporations. As a matter of fact, nonprofit corporations have been just as eager as investor-owned institutions to profit from physician services. The presence of the corporation as a participant in the delivery of health care is here to stay. The art of medicine is still important; but the science of medicine has become capital intensive, requiring tremendous outlays of capital. In many parts of the country, this capital is available only from investors who seek profits through health facilities.

Investors are not the only ones who seek profit from medicine. The individual physician or physician groups deserve compensation for the time, education and capital that they have invested. These interests are largely subordinated to the welfare of patients. There is no evidence that a proper balance between the welfare of patients and the desire of physicians or investors to earn a reasonable return or a profit cannot be achieved. The two motivations are not necessarily antagonistic. As a matter of fact, the free enterprise system has demonstrated that the profit system produces competition which in turn promotes the public welfare by better and lower cost goods and services.

The potential conflict between serving patients and economic self-interest is inherent in all professions, but the learned professions have historically resolved it in favor of the public interest. The same potential conflict is present whether the profession is practiced in solo or group organizations or through nonprofit or for-profit institutions. In the final analysis, it is the professional responsibility of each physician to give priority to patient and public welfare.

Medical practice is at risk of being swallowed up in the concept that the health care industry provides for the health care needs of society. The health care industry, consisting of third party payors, hospitals and all the technology that goes with an industry, provides support for the professional practice of medicine; but the physician should not be thought of nor should he or she function as merely a chief or supervising technician employed by a health center or clinic in an industrial complex. Medicine is a profession, a calling, and not a business or a segment of an industry. Physicians serve patients, not clients, nor customers, nor health care consumers.

The Board of Trustees urges physicians to avoid the trap of identifying themselves as part of the health care industry. Physicians serve individual patients first and their self-interests secondarily. This is difficult to convey when the physician is regarded as an important income producer in the profit center of a hospital, or when consideration must be given to the profit demands of stockholders who provide the facilities in which the physician functions and who share in the profits derived from the physician's services.

The investor who has risked capital in seeking to profit from health care services provided by physicians and others poses a potential intrusion in the physician-patient relationship that is possibly far more detrimental than the interests of third party payors. The insurance carrier in the final analysis derives its profits from its policyholders, the physician's patients, but not from the physician who has the means through the services ordered on behalf of the patient to increase profits of investors.

The art of medicine is practiced by physicians concerned with the welfare of individual patients. Commercialism in the practice of medicine would reduce the professional on the level of a technician engaged in assembly line services.

The Board of Trustees urges all physicians to reaffirm their commitment to the primary mission of the medical profession—taking care of patients. Physicians should be mindful of the threats to medical professionalism, and they should be ever alert that the needs and welfare of patients are placed first in all situations. The physician's primary responsibility today, as it has been throughout the history of medicine, is to his or her patients. The Board also urges physicians to avoid references to the health care industry. Such references indicate that the physician and his or her professional services are part of an industry and that medical services are therefore services provided by an industry of faceless persons. Each physician should reaffirm his or her commitment to uphold the hallmarks of the ethical physician and the true professional who provides individualized professional services to individual patients.

This is AMA Board of Trustees Report GG, submitted to the House of Delegates at its Annual Meeting in June, 1983.

A WORD TO THE WHYS

WHY AMA? The AMA has tackled the issue of cost effective quality medical care by supporting the development of health care coalitions. The Association believes the best mechanism for keeping health costs down without sacrificing quality or accessibility is through voluntary coalitions in which physicians actively participate. Working to promote high quality, affordable medical care in the United States: it's one more good reason why you should be a part of the AMA.

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DECEMBER, 1983

editorials

Non-Sexist Thoughts on Christmas

The Christmas catalogs have been coming in for nearly two months now, and the nip in the air this morning makes it a little easier to consider a Christmas editorial. Nevertheless, the trees in the yard are still more or less green, and what leaves litter the ground at this point—and there are lots of them—are there because of the extreme drought that has plagued us this summer, and not to the fingers of Jack Frost. Christmas is still well over two months away.

It is early of a Sunday morning, the day of the week traditionally devoted in the Christian world to God. We pay Him a visit on that day if it's convenient. If it isn't, He'll understand. Another one will roll around soon. Christmas is His birthday, and we make a little extra effort on that day to think of Him—that is if the press of the day, what with trying to clear away the debris and get the turkey dinner ready and all, doesn't get in the way. It isn't much different if you aren't a Christian, as Jews celebrate Chanukah and everyone else just celebrates. Everyone does pretty much the same thing, except that some spend an hour or so in church—that is, unless we have something else more pressing. After all, Christmas is a *very* busy time.

It seems the National Council of Churches has just completed a non-sexist lectionary—a compendium of familiar Bible readings written in such a way that God is made sexless by the elimination of any personal pronouns in reference to God, and by repeating the noun it simply refers to God as God. It makes for very dull reading, but I guess I have no quarrel with that construction if dull reading is the price you are willing to pay for your own particular chauvinism. To refer to Jesus, though, as anything but male is tampering with history, and it is clearly ridiculous to keep referring to Him in His adulthood as "the Child" instead of "the Son."

All of the above, and a whole lot more, is designed to get our minds off God and His purposes, and onto ourselves, which really isn't hard, considering human nature. This monkeying around with the Bible to make it "non-sexist" is only misdirected energy. Sunday (or Saturday, if it pleases you) is not the only day we are to worship God; it is just a convenient day for gathering together to do it corporately. Nor was Jesus born on December 25. When He was born we do not know. The date must not be important, else we would have been given it.

It is the work of the devil to keep mankind so preoccupied with the trappings that we have no time or energy left for God Himself. The message of the Sabbath is that God is God seven days a week, and the message of Christmas, that God was reconciling man to Himself, is cause for celebration 365 days of the year. If we treat either in any other way, then we are simply tipping our hats to an acquaintance instead of communing with a friend. God allows us the freedom to do it or not to do it any way we wish.

However you keep Christmas—or even if you

do not keep it all—I pray it will be for you a time of peace and joy and not a burden. Neither the Sabbath nor Christmas was meant to wear you down, but to lift you up. To paraphrase the words of Jesus concerning the Sabbath, Christmas was made for man, and not man for Christmas—and in that term I do not include all the paraphernalia, which is something we have done to ourselves.

J.B.T.

Ought We Because We Can—And If So, How?

The matter of donor organ transplants—not to mention the substitution of artificial organs—has gotten completely out of hand; it has generated a tangled morass of medical-legal-ethical-economic implications, only one consideration being the enormous expense of an organ transplantation program. The cost of research into development of an artificial heart has already run into hundreds of millions of dollars, its only tangible results thus far a few additional pain-filled months for Dr. Barney Clark at a cost of several hundred thousand dollars. Recipients of human donor hearts have fared a little better, but successful ones are few, and the expense, mostly in one way or another to the public, is such that on any significant scale it would be prohibitive.

Liver transplantation has now become quite feasible and is being carried with increasing frequency. Unlike cardiac recipients, many of whom are approaching the end of their normal allotted life span, liver recipients are primarily children, and the demand for donor organs, due to the nature of the disease processes, is considerably smaller. The expense to the public, therefore, could be predicted to be less for liver transplantation because of both decreased initial outlay and projected subsequent productivity of the recipients.

For the moment, however, both cardiac and liver transplantation remain in the realm of the esoteric; renal transplantation is where the action is just now, and that program is booming. Medicare, Medicaid, and private carriers will finance patient care, which usually encompasses long periods on dialysis while awaiting a suitable organ, two operations—one on the donor and one on the recipient—and pharmacologic immunosuppression, with its lifelong risk of complicating infection. Even though all of the procedures have now been carried out countless times, and are well standardized, the expense continues to mount.

Suspense mounts also. Whereas for hearts and livers one is restricted to the use of cadaver organs, the kidney is a paired organ; since only one will suffice quite well to maintain the body's homeostasis, renal transplantation became feasible even before suitable maintenance techniques for cadaver organs were developed. It also allows a living individual to donate one of his kidneys if he wishes—or, at least at present, to sell it.

Since time immemorial—likely ever since more than one person existed—there has been a market for whatever is useful—as well as many things that are not—or desirable. This led to, among other things, the slave trade, prostitution, and indentured servitude. The first was clearly immoral, unless of course the victim was of the enemy, and it gradually became illegal, as well. The second has at one time or another been either allowed or prohibited for a variety of reasons; the third is also presently banned, as it is not considered proper for one person to own another, even temporarily.

Society has always been generally schizophrenic over the rights of an individual regarding his own person—or at least, free society, so called, has. Tyrannies have had an easier time of it, as almost everyone belongs body and soul to the state—which usually means to those in power, who can willy-nilly take you to bed or make a lampshade of your skin. But in a free society, one could theoretically dispose of his body or its parts as he sees fit, though he cannot destroy it. In fact, it is on such a premise that the organ donor program is based.

All of this breaks down from time to time because of practical considerations, most of them due to effects not on the owner but on others, examples being prohibition of prostitution (for sexual purposes, that is, since other types of prostitution abound, and are even encouraged), and trafficking in drugs of certain kinds (except alcohol, of course, which is too popular). The line is always very fine between the free society and the police state, requiring the even finer distinction between liberty and license. That line is not always recognized by legislators, and their actions have to be tempered in execution. This was recognized by the framers of our Constitution, who established a balance between the Legislative, Executive, and Judicial branches of govern-

ment. (It is to our detriment that in recent years each of the branches has infringed the rights, prerogatives, and duties of the others to the extent that much of what we now must suffer at the hands of government would actually be unconstitutional if strict construction were applied.)

A recent newsletter from the American Association of Blood Banks mentions two items from the *Washington Post* that must give one pause. One of them has to do with the increasing frequency of foreign recipients of American kidneys, especially in the Washington area, and the other with a plan to broker human kidneys. Perhaps we might try to assess their relative merits in a dispassionate, nonjudgmental way, at least for the moment, taking the latter first.

Briefly, a physician in Virginia, for a charge of $2,000 to $5,000 per kidney, would match the prospective seller with a prospective recipient and arrange for the transplant. The seller would name his price (the broker gives something around $10,000 as the going rate per kidney, which, plus the broker's fee, would be paid by the recipient). The procedure itself would be paid for in the same way as transplantation of a donor kidney. The broker intends to mount a campaign for prospective "donors" throughout Europe and Asia. Though he has been counselled against this venture by the Surgeon General of the United States, there is no statutory prohibition against it—at least, not yet.

Entrepreneurs, like the poor, we have always with us (there is, it seems, not infrequently a cause and effect relationship). While the situation described in the book *Coma* was admittedly overdone to make a good suspense story, it was an obvious inference from the demand for donor organs, an inference derived not only by the author, but by the Congress as well, where a bill introduced by Rep. Albert Gore, Jr., making the sale of human organs illegal, is under consideration. Should it be enacted?

Considering the expense the broker will incur, his fee does not appear exorbitant. The kidney belongs to the donor, and since its transfer, barring complications, would harm no one, and would certainly help the recipient, should the kidney's owner not be allowed to sell it? Would not prohibition of the sale be in restraint of trade and therefore unconstitutional? Or are there overriding moral implications, smacking of ownership of one individual by another? Is there a difference in selling one's kidney and selling his services? Individuals sell themselves all the time, only in less spectacular ways. Is this particular way less legal because it is more visible? Would it be more ethical if the broker were not a physician? It would certainly be less controversial, not to mention less newsworthy.

Now, on to non-American recipients of American kidneys. The argument advanced against such a transplant is that a kidney that might be used to save an American life is being used instead to save a "furrin" one. At the risk of being hooted down, I blush. I even think I'll not say any more about that one. Indeed, I think the facts themselves say more than I possibly could. To use the legal term, *res ipse loquitur.* Nevertheless, such an operation is deplored by a congressional subcommittee looking into the matter, calling the present system "inequitable and unfair." Unfair to whom? It was pointed out that foreign recipients typically pay twice as much as "domestic" ones for the procedure, thus providing hospitals a financial incentive to find kidneys for foreign recipients. Apparently, then, this is done at no cost to the taxpayer. Why is the Congress involved?

I have raised a number of questions to which I have provided no answers, primarily because I find no ready ones. As with all moral and ethical questions, society itself decides. The American public once decided to vote dry and drink wet, resulting in a disregard for law from which we have yet to recover. For moral reasons, prostitution (defined here as rental for you know what purposes of a body usually, though not necessarily, female) is illegal, but for practical reasons this prohibition has never been very rigidly enforced. In fact, those statutes receive only token attention, and that only sometimes. Society also decides when killing is legal, as well as when it is justified even if done illegally. Society has determined arbitrarily that life begins not at conception but at birth, despite evidence to the contrary, because it is convenient to do so. To relieve itself of the responsibility, society has attempted to make this a scientific decision, and to have science make a pronouncement as to when life begins. It is, of course, not a scientific or even a moral decision, but a legal one.

In a day when society has decreed that it is spending too much of its gross national product on health care, a vast and increasing proportion of that amount is being contributed to maintaining marginally profitable, and even patently unprofitable, life. Society is faced with a problem with which it has thus far refused to come to

grips. It has decreed that everyone must have *the best* health care available, but at the same time it is not willing to afford that quality. What it is willing to afford, therefore, must be one of two alternatives: the first, a two-tiered system, in which only those who can pay for it or who have a high priority will receive the best; the second is that the best will be only mediocre. In that case it will be useless to pursue investigation into further technologic advances, which itself will save a lot of money. Under the first alternative rationing of health care would be inevitable. That has been the result in Europe, and, unless we wish our health care system dismantled, it will also happen here. Some individuals must necessarily be declared expendable, and someone or some committee will have to decide which are the "marginally profitable" lives, and which have high priority.

Health care costs must continue to increase despite all economic remedies, since the major costs are, not necessarily in the order given, high technology, consumables, and compliance with government regulations, many of them onerous, extremely costly, and unnecessary. It would be easier for society to give or withhold consent to all this if it were fully informed, but that would not be as convenient for the politicians, and so vital information is withheld, and the public is incapable of informed consent in this arena. Society giveth, and society taketh away, but having been rendered blind, it is being led by biased politicians and an even more biased press, and so, in the name of "the public good," both medicine and our patients are at their mercy.

J. B. T.

in memoriam

David W. Hailey, age 84. Died October 11, 1983. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Carl Hartung, Sr., age 73. Died September 26, 1983. Graduate of Tulane University Medical School. Member of Chattanooga-Hamilton County Medical Society.

Joseph Y. McCoin, age 75. Died September 25, 1983. Graduate of University of Tennessee College of Medicine. Member of Bradley County Medical Society.

Fred Anderson Rowe, Jr., age 58. Died October 5, 1983. Graduate of University of Tennessee College of Medicine. Member of Nashville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY
John David Cowan, M.D., Maryville
Eric Patrick Ellington, M.D., Maryville
Jerome James Heiny, M.D., Maryville
Gregory M. Holmes, M.D., Maryville
Stephen K. Kiefer, M.D., Maryville

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY
Calvin Lee Calhoun, Jr., M.D., Chattanooga

NASHVILLE ACADEMY OF MEDICINE
Donald Edgar Barker, M.D., Nashville
Steven J. Eskind, M.D., Nashville
Suzanne Dowdy, M.D., Nashville
Andrew Nixon Muller, M.D., Antioch
Vernon H. Sharp, M.D., Nashville
Michael G. Smith, M.D., Nashville
Daniel L. Starnes, M.D., Nashville
Ronald Gordon Wiley, M.D., Nashville

(Student Member)
Steven C. Lynch, Nashville

WASHINGTON/UNICOI COUNTY MEDICAL ASSOCIATION
J. Kelly Smith, M.D., Johnson City

TMA Members Receive AMA Physician's Recognition Award

Fourteen TMA members qualified for the AMA Physician's Recognition Award during September 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Douglas H. Brown, M.D., Nashville
James E. Burnes, M.D., Madison
Larry C. Collins, M.D., Cleveland
Larry M. Faust, M.D., Clarksville
Monica A. L. Gefter, M.D., Chattanooga
Charles S. Hertz, M.D., Memphis
Barbara Kimbrough, M.D., Johnson City
Harold A. McCormack, M.D., Memphis
James G. McMillan, M.D., Jasper
Patrick J. O'Sullivan, M.D., Memphis
John A. Reaves, M.D., Dyersburg
John L. Sawyers, M.D., Nashville
Alvin J. Weber, III, M.D., Memphis
Richard L. Wooten, M.D., Memphis

personal news

Joe P. Anderson, M.D., has been named chief of staff at St. Francis Hospital in Memphis.

Herschel L. Douglas, M.D., dean of East Tennessee State University's College of Medicine, has been presented the Thomas W. Johnson Award by the American Academy of Family Physicians, recognizing his outstanding contributions to education for family medical practice.

The following TMA members have been elected Fellows of the American College of Surgeons: *Alejandro A. Rivas, M.D.,* Old Hickory; and *George M. Stevens, III, M.D.,* Oak Ridge.

national news

From the AMA's Office in Washington, D.C.

The Medicare trust fund is predicted to go broke by 1988 or 1990. Earlier this year the Congress passed a Social Security Act Amendment that set in place a prospective pricing system for hospitals based on diagnosis related groups (DRGs) and called on the Department of Health and Human Services to study the advisability and feasibility of extending the concept to cover physician payments under Medicare. As October ended in Washington, the Congress and the administration were grappling with a number of proposals to cut Medicare costs. This National News provides a sketch of current activities, with overtones of things to come.

Budget Reconciliation Reflects Piecemeal Cost Cutting

A proposal to freeze some Medicare payments to physicians and require assignment of claims for these services will be submitted by the House Ways and Means Committee for debate on the floor of the House despite the proposal's failure to win the committee's endorsement. House debate on the issue was expected in early November.

The proposal initially would have rolled back and frozen for six months Medicare payments to physicians for services to hospital inpatients. Physicians would have been required to accept assignment of claims for inpatient services. Savings were estimated at $920 over the next three years.

Although the plan was adopted with little debate and no hearings in the Ways and Means Health Subcommittee, it was rejected in lengthy secret sessions by the parent committee after the assignment and freeze issues were divided for separate votes. The mandatory assignment provision was rejected by a small margin, after which the freeze was defeated by a larger majority, primarily because it was feared the freeze without mandatory assignment would penalize beneficiaries.

Ways and Means Chairman Rep. Dan Rostenkowski (D-IL) then mounted a last ditch effort to convince Democrats who had voted against the proposals to support an even-tougher alternative. The alternative would have added a requirement that hospitals deny admitting privileges to physicians who refused to commit to taking Medicare inpatient cases on assignment. Medicare's criminal penalties would have been assessed against any physician who made, but didn't honor such a commitment.

Although, he was unable to garner sufficient support for adoption, Rostenkowski won agreement to allow him to take the proposal to the House floor as a separate amendment. The House debate, which had been scheduled for Oct. 28, was postponed due to another controversial portion of the Ways and Means package—industrial development bonds.

Other Ways and Means provisions involve Medicare payment for cardiac pacemakers and clinical laboratory services. These provisions are also included in a package adopted by the House Commerce Committee. Both committees' proposals are intended to bring health programs into compliance with spending targets in the congressional budget resolution. The Senate Finance Committee has not completed deliberations on its reconciliation package.

PROs Overemphasize Cost, Government Told

When Medicare officials designed their new diagnosis-related, fixed price hospital payment plan, they relied heavily on new review teams called professional review organizations (PROs) to make sure that hospitals didn't try to get around the system by admitting more patients and skimping on the quality of care they provide.

Now hospitals, physicians and some of the professional standards review organizations (PSROs) that preceded the PROs as review bodies are telling the government that the bidding principles it outlined in August for the would-be PROs overemphasize admission controls and do little to protect quality.

Basically, the bidding principles, called "scope of work," require the PRO to detail five objectives aimed at reducing admissions and one intended to protect quality. The draft also includes a cost-benefit ratio and an "admissions factor" that rates a PRO by its ability to reduce admissions and cut costs. A point system by which bids will be evaluated accompanies the "scope of work" draft.

In general, the responding groups—including the

American Medical Association, the American Hospital Association, the American Society of Internal Medicine, and the American Medical Peer Review Association—were critical of the "admissions factor" formula and of the emphasis on cost over quality.

The AMA and AHA also urged that the point system be redesigned to give physician-sponsored organizations a greater advantage in the bidding process. The AHA recommended that PROs be permitted to delegate review to hospitals and said that PROs also should look at physician services related to reviewed hospital services, denying payment for physician services to any patient for which payment to the hospital is denied.

Business groups and AMPRA said PROs should be required to include a plan for review of the care of private patients in their bid. All of the groups, and the Blue Cross and Blue Shield Association as well, have called for changes in a provision that would prohibit officials, owners or board members of a health facility from participating in the governance, management or ownership of a PRO.

In criticizing the quality objectives outlined in the principles, the AMA warned that fixed price payments provide a strong incentive for underprovision of services. In this new environment, the association commented, "PROs must play a vitally important role in ensuring that quality medical care is provided to the nation's elderly by supporting physicians in their decisions to provide medically necessary care."

Ancillary Services Unnecessary

A General Accounting Office review of 16 hospitals has concluded that 6% of the ancillary hospital services charged to Medicare were unnecessary.

As a result, GAO already is stumping for changes in the rate structure in Medicare's new diagnosis related groups (DRGs) payment plan.

The study, performed for GAO by eight professional standards review organizations (PSROs), found that about 10% of laboratory tests, special services and radiology were not needed. About 32% of all physical therapy and 6% of all ancillaries were considered unnecessary. Medicare paid the charges, GAO concluded, because the program does not have an adequate review system for medical necessity.

The GAO said it recognizes that the new fixed-price DRG payments are expected to encourage hospitals not to do unnecessary ancillary services, but it recommended that Medicare beef up its review of the necessity of services anyway. About 60% of all hospital charges are for ancillary services, and in 1984 Medicare and Medicaid will spend over $30 billion for ancillaries, GAO noted. Medicaid will not be under a DRG system and data gleaned from Medicare cases could be used to rework the DRGs, the report suggested.

The Department of Health and Human Services is required to recalibrate DRGs for fiscal 1986 and GAO says that the recalibration should remove from the DRG rates any portion attributable to unnecessary ancillary services.

Medicare Deductibles to Rise January 1

The nation's 30 million Medicare beneficiaries will have to pay about 17% more out of pocket for hospital stays in 1984 as the Medicare hospital deductible increases from $304 this year to $356 on Jan. 1, the Department of Health and Human Services has announced. The premiums beneficiaries pay for their supplementary medical insurance (Part B) will rise from $12.20 to $14.60 a month on Jan. 1.

Beyond DRGs?

Just as hospitals across the country were gearing up for the advent of Medicare's new diagnosis related groups (DRGs) payment scheme on Oct. 1, organized labor and some of its congressional supporters staged a hearing to promote a labor-backed bill that goes far beyond the new Medicare plan.

Called the "Health Care Cost Control Act of 1983," the bill would establish federal caps on payments to both physicians and hospitals, require physicians to take all Medicare claims on assignment, and increase federal Medicaid payments to states that set up their own systems to control hospital and physician fees. Both the federal and state controls would apply to all patients—not just Medicare and Medicaid beneficiaries.

Introduced earlier this year by Sen. Edward Kennedy (D-MA) and Reps. James Shannon (D-MA) and Barbara Mikulski (D-MD), the bill was the subject of a hearing by the House Ways and Means Health Subcommittee. It was endorsed by labor groups and supported in part by the Health Insurance Association of America.

It was opposed by the American Hospital Association, the Blue Cross and Blue Shield Association, and the American Medical Association, whose representatives called it an extension of the hospital cost caps proposed by the Carter administration and rejected by Congress.

The cost cap plan is not likely to be seriously considered this year in a Congress waiting to see how effective hospital DRGs will prove. But since DRGs are expected to delay Medicare bankruptcy only to 1990 at best, Congress soon will have to seriously address Medicare's financial problems and Kennedy appears to be positioning for that debate.

Kennedy reportedly will offer another alternative which he considers a "refinement" of that plan. He and Rep. Richard Gephardt (D-MO) plan to introduce a proposal to extend DRGs to all payers and apply it to physician fees as well as to hospitals.

AMA Board member Alan R. Nelson, M.D., testifying in October, said the Kennedy-Shannon approach is based on "strict regulatory controls, arbitrary and rigid caps, massive bureaucratic administration, and harsh penalties. Administration of the program would be highly complex and intrusive into the management of hospitals and the delivery of Medicare in this country," and "would provide no

safeguards to assure quality care," Dr. Nelson said.

Dr. Nelson, a Salt Lake City physician specializing in internal medicine, called the proposal to limit physician fees "counter-productive" and "unfair" since it would restrain physician charges while placing "no such restraints on the rest of the economy." He also warned that mandated assignment of Medicare claims, in conjunction with proposals to hold down Medicare reimbursement to physicians, could adversely "affect access of Medicare patients to the physicians of their choice."

Congress to Deal With Malpractice

Rep. Richard Gephardt (D-MO) and other members of the House Ways and Means Committee may introduce "in the near future" a proposal that "will radically change" the way medical malpractice claims are treated, Gephardt reported recently.

Gephardt, who described the proposal at a recent meeting of the National Health Council in Washington, apparently was referring to a plan being drawn up by Louisiana Republican Rep. Henson Moore who, like Gephardt, is a member of the House Ways and Means Committee.

Characterized by Gephardt as the application of the no-fault insurance concept to medical malpractice, the Moore proposal reportedly would give the physician or health care provider involved in a malpractice case the right to offer, prior to court action, a settlement based primarily on the plaintiff's economic loss as a result of the alleged malpractice. Acceptance of the offer would eliminate the plaintiff's right to further legal action except in certain specific instances. The proposal might be applied only to cases filed by Medicare and Medicaid patients.

"A number of us in the House have been studying" the malpractice issue and its potential impact on health costs, Gephardt said. There "are still a lot of problems" with our proposal, he conceded, and "I don't know if we can even begin to pass such legislation. But I think it is an integral part of any solution.

"I'm convinced that we've got to give relief to the medical practitioner and come up with a new system for compensating victims of malpractice that will give incentives to physicians to not practice as elaborate and as defensive a medicine as they now logically feel they have to."

Medicare Council Nears Final Vote

A Medicare advisory committee has backed away from its earlier tentative recommendation that Medicare reduce payments to physicians who do not accept all Medicare claims on assignment as it wound down toward a final vote on its work Nov. 3-4.

The advisory committee, chaired by former Indiana Governor Otis Bowen and known as the Social Security Advisory Council, is charged with suggesting solutions to Medicare's financial problems.

Earlier, the Council had agreed to a proposal in which physicians could have chosen on an annual basis to become "participating physicians." "Participating physicians" would agree to accept Medicare's reasonable charge as payment in full and Medicare would continue to pay, as it does today, 80% of the reasonable charge. Billing and payment procedures for these physicians would be streamlined and their names would be published in an annual directory. Medicare payments to "non-participating physicians" would have been reduced to 75% of the program's reasonable charge limit.

Meeting on Oct. 16-17, however, the Council reversed its earlier decision to call for lower payments to non-participating physicians because it viewed the proposal as a shift of costs to beneficiaries, which some members opposed. The recommendation to set up a "participating physicians" concept and the other incentives were retained.

The Council also tentatively decided at its October meeting to recommend substantial increases in the Medicare Part B deductible. Under this proposal, the deductible would increase each year by the same amount as the consumer price index rises and the increase would be retroactive to 1974. The Part B deductible would increase from its current $75 annual level to an estimated $120 beginning in 1985 under the proposal.

At a late September meeting, the Council also reversed another earlier recommendation which opposed taxing a portion of employer-paid health insurance premiums. At the September meeting, the Council decided to support a tax on premiums exceeding $75 a month for individuals and $175 a month for families. The Council also has called for a restructuring of Medicare paid for by increased premiums and a study on the financing of medical education "in order to provide for an orderly withdrawal of Medicare funds from education and training support activities."

Role for Physicians in Hospice Urged

A new Medicare hospice benefit to be initiated on Nov. 1 will be "beneficial" to many patients but regulations to implement it should be modified "to give greater recognition to the role of the patient's attending physician," the American Medical Association has told Medicare officials.

In commenting on the regulations, the AMA suggested several specific areas where the role of the attending physician should be strengthened. The comments note that hospices will be paid a flat per diem rate and call for the continued involvement of the attending physician as a "safeguard because the hospice has a significant incentive not to provide care that would result in incurring expenses in excess of the reimbursement amount."

Elderly Groups Hit Medicaid Proposal

Groups representing children and the elderly charged in October that new Medicaid rules proposed by the Reagan administration could force many low-income individuals to spend more for their medical care and leave them less to spend on food and shelter.

The rules, proposed in the Sept. 2 *Federal Register,* would permit states to revise the way they determine eligibility for the so-called medically indigent. About 3.7 million of the 21.9 million Medicaid recipients fit in this category which gives states the option of providing Medicaid to low-income individuals with high medical bills.

The new rules would allow states to restrict the medical expenses that can be counted in determining eligibility. For instance, the state could now refuse to count as a medical expense bills for services provided more than three months earlier or for any services not covered by the state Medicaid plan except for health insurance premiums and copayments. In calculating the individual's potential cost of nursing home services, the state could assume costs equal to what Medicaid pays the nursing homes rather than what private patients pay.

Compromise on Health Planning

Progress toward a compromise bill to reauthorize the health planning program continued slowly but surely in late September and October as major congressional players appeared to be moving toward an agreement and the White House clarified its position on planning.

Representatives of several key legislators, including Sens. Edward Kennedy (D-MA), Orrin Hatch (R-UT) and Dan Quayle (R-IN) and Reps. Henry Waxman (D-CA) and Edward Madigan (R-IL), have met and reportedly are discussing a three-year reauthorization that would amend the present planning legislation rather than repealing it and replacing it with a block grant. Funding apparently would be near the current level of $64 million.

Meanwhile, White House Office of Management and Budget Director David Stockman has written to Madigan to clarify an earlier OMB letter on health planning.

In the second letter, Stockman pledged that the Reagan administration will "not oppose a substitute" with CON levels of $1 million for institutional health services; $5 million for capital expenditures and $2 million for major medical equipment. He urged Madigan to "use your leadership to gain further consideration of your subsitute bill with these higher CON thresholds."

Open Season for Feds

Federal employees' annual opportunity to change health plans begins soon and federal officials expect the trend to continue among employees to switch to lower-cost plans, often with higher cost-sharing amounts.

In 1983, about 1 million employees shifted to lower cost plans rather than face premium contribution increases averaging about 24%. As a result, the Office of Personnel Management reported that overall increases in what federal workers paid for coverage actually went up by only about 4%.

For 1984, employee premium contributions in the 150 federal health plans will increase on an average by about 19%. The federal government, which pays about 60% of most employees' health insurance premiums, will increase its contribution by 13%.

The actual increases among the plans will vary widely, however, with the employee's cost of the Aetna government-wide, high option family plan rising by about 87% to $109.01 a month while the employee's cost of the Blue Cross and Blue Shield government-wide, high option family plan will rise to $140.97 a month, or about 16% more than this year. The largest HMO in the program—the Kaiser plan in Oakland, CA—will cost the employee $41.69 per month for family coverage, 17.6% more than this year. Many of the other 130 HMOs in the federal health program will have even lower increases and some will actually reduce prices.

The new plans become effective Jan. 1. The selection period, called an open season, begins Nov. 14 and runs to Dec. 9. About 10 million federal employees, retirees and dependents are covered by the federal health plans.

HHS Appropriations Bill Passed First Time in Five Years

For the first time in five years, Congress gave final approval to an appropriations bill for the Departments of Health and Human Services, Labor and Education. The $104.4-billion measure, passed on Oct. 20, provides funding for fiscal 1984. The President was expected to sign it even though it exceeded his budget request.

The bill contains about $64.7 billion for HHS, including $13 million for the proessional standards review organization (PSRO) program, which the White House Office of Management and Budget had tried to eliminate through the appropriations process. Funding for several programs, including health planning and nurse training, was deferred since the programs have not been reauthorized by Congress. These programs will continue to operate for the time being under a continuing resolution that funded them through Nov. 10.

The bill also includes:

- $1.3 billion for the Health Resources and Services Administration which encompasses the maternal and child health block grant funded at $399 million, community health centers which will get $327 million, and the National Health Service Corps funded at $89.3 million.
- $374.5 million for Centers for Disease Control,

including $88 million for a disease prevention block grant. CDC and the National Institutes of Health will share some $41.6 million in funds to address the Acquired Immune Deficiency (AIDS) problem.

- $4.4 billion for the National Institutes of Health, including $1 billion for the Cancer Institute and $674.6 million for the Heart, Lung and Blood Institute. The bill also includes $3.5 million for up to five Alzheimer Disease Research Centers and sets aside $10 million for research on neurological disorder in "honor" of former Sen. Jacob Javits who suffers from Lou Gehrig's disease.
- $34.4 billion for the Health Care Financing Administration, including $15.6 billion in Medicaid grants to states, $17.7 billion in payments to the health trust funds, and $13 million for PSROs.

The PSRO money is intended to keep approximately 140 PSROs still in operation going until they are replaced by peer review organizations (PROs). OMB wanted to eliminate the PSROs but HCFA argued that they were necessary to keep tabs on hospital performance under Medicare's new prospective pricing scheme until the PROs are in place. The House bill contained no money for PSROs and the Senate included $17 million. PSROs had said they needed at least $15 million to conduct reviews until the PROs are up and running. The final appropriations measure also deletes House language that would have prohibited future funding for PROs. The PROs will be funded through the Medicare trust funds.

New Ethics Commission Proposed in Congress

Six months after the demise of the President's Commission for the Study of Ethical Problems in Medicine, members of Congress are drafting proposals to form another decision-making body.

These preliminary proposals, however, are dramatically different. One proposal, drafted by Sen. Edward Kennedy (D-MA), would place the commission within the Institute of Medicine. The second, drawn up by Sen. Jeremiah Denton (R-AL), would place it under the wing of the Office of Technology Assessment.

The differences originate with one basic disagreement: who should influence commission decisions. Sen. Kennedy believes that the commission should stand apart from Congress; any political influence would threaten the objectivity of a commission, he says. Sen. Denton believes that the commission should be responsive to the concerns of Congress; elected officials have a responsibility to guide the decision-making process, he counters.

"We want the commission to be composed of people in the (scientific) field, who can operate freely regardless of the nature of their conclusions," says a Kennedy spokesman. Under the Kennedy plan, the commission would be funded by a grant that could be discontinued if Congress is dissatisfied with its work. Members of the commission would be appointed by the Institute of Medicine.

In contrast, Sen. Denton wants the commission to be composed of members of the OTA staff, who would participate according to their area of expertise. Consultants and outside specialists would be called in to offer their opinions. "(The former commission) became an extra-legislative body, with no process of ratification. We don't want it to have that stamp of authority," said a Denton staffer.

FDA's OTC Drug Review Winds Down

After 11 years of effort, the Food and Drug Administration has compiled a new list of the nation's safe and effective nonprescription drugs.

Only one-third of the 700 key ingredients reviewed were found to be safe and effective. However, many popular products contain both effective ingredients and ineffective ingredients which are still being tested.

As a result of the study's recommendations, consumers can now buy many former prescription drug products over-the-counter, such as hydrocortisone; two antifungals; seven antihistamine or nasal decongestant ingredients; diphenhydramine hydrochloride and diphenhydramine monocitrate as nighttime sleep-aid ingredients; and dyclonine hydrochloride as a pain reliever and anesthetic in mouthwashes, gargles, and lozenges.

But the review also pulled many over-the-counter products from the market, such as sweet spirits of nitre; camphorated oil; hexachlorophene, and all daytime sedative products promoted to relieve "simple nervous tension."

Many manufacturers have reformulated products to take advantage of the study's recommendations. Additionally, some manufacturers improved directions, warnings, or consumer information on product labels. Much work still remains, however, to convert the study's recommendations into regulatory action, the FDA says.

Direct-to-Consumer Rx Ads Nixed by Consumers

A Food and Drug Administration survey shows that the vast majority of consumers attending FDA public hearings around the country have serious concerns about direct-to-consumer advertising of prescription drugs.

"Opposition to direct-to-consumer drug advertising is surprisingly unified. It is also clear that consumers want to participate in the development of a policy on direct-to-consumer advertising as it develops," concluded Alexander Grant, of the FDA's Office of Consumer Affairs.

Approximately 60% of the surveyed public—950 persons attending 38 FDA hearings last summer—opposed advertising under any circumstances. Around 20% opposed advertising unless controlled by strict FDA regulations. Only 20% of the public voiced support for direct-to-consumer advertising.

Persons opposed to advertising without strict super-

vision said that FDA should prohibit advertising of brand-name products, drugs for serious or chronic conditions, or new products not yet evaluated by physicians. Opposition was cited because they thought such advertising would increase drug prices, confuse the public, disrupt the patient-physician relationships, and present an unbalanced picture of drug risks and benefits.

The survey received a mixed reaction at FDA, which is struggling to design a formal policy on this new form of promotion. Some experts said it does not represent general public opinion, because only more vocal consumers attended the hearing. However, others said that the audiences were well-balanced, containing not only consumer advocates but health professionals, academicians, and drug and advertising industry representatives as well.

Infant Formula Labeling Change

The Food and Drug Administration reviewed comments this month on its proposed revisions to the labeling of proposed infant formula.

FDA wants to add a list of all nutrients, the expiration date, and a pictogram to indicate the need for dilution. Under the proposal, the statement "Do Not Add Water" or "Add Water" would be displayed prominently on the formula's display panel, reducing confusion between concentrated and ready-to-feed formulas. A pictogram will help mothers who do not read; for example, dilution would be displayed in three drawings: a boiling teapot, boiling water being poured into a measuring cup, and a cup full of water poured into a baby bottle.

Other changes recommended earlier by consumer groups—such as bilingual labeling, a label that endorses breastfeeding, and a list of possible side effects of formula use—were rejected by the FDA.

The regulation is one of final amendment to the now-famous Infant Formula Act of 1980, passed after an outbreak of metabolic alkalosis caused by nutritional deficiencies. Previous amendments revised procedures in recall and quality control.

These changes—proposed after consultations with the American Academy of Pediatrics, the World Health Organization, infant formula manufacturers, and 13 consumer, women's and minority groups—are expected to add a one-time charge of $50,000 to the formula industry's estimated $500-million revenue this year.

Congressional Attempt to Reschedule Quaaludes

Two new bills—HR 1055, introduced by Rep. Larry Smith (D-FL), and HR 1097, sponsored by Rep. J. Roy Rowland, M.D. (D-GA)—would change the status of methaqualone (Quaalude) from schedule II to schedule I, taking it out of the hands of physicians and putting it in the same category as other drugs with no accepted medical usage, such as heroin, LSD and marijuana.

The dangers and advantages of the drug were recently debated at hearings before a subcommittee of the House Energy and Commerce Committee. Supporters of the proposed legislation say that methaqualone has limited therapeutic advantages and can be easily substituted. Opponents of the legislation contend that the drug offers distinct advantages: for instance, it may be used in conjunction with anticoagulant therapy and can be used safely for longer periods of time than barbiturates.

Because virtually all sedative and hypnotic drugs have the potential to cause psychic and physical dependence, methaqualone should stay on the market, says Mark Novitch, M.D., Acting Commissioner of the Food and Drug Administration. Besides, the drug is no longer frequently prescribed by physicians, causing a decline in street abuse also, he says.

The change in scheduling is also opposed by the American Medical Association, which argues that the best approach to stop drug abuse is to eliminate the source of illicit drug diversion rather than banning the product. Moreover, Quaalude has an accepted use as a hypnotic agent, and does not satisfy the criteria for rescheduling. The AMA adds that the appropriate route for rescheduling is through the administrative process, not through legislation.

announcements

CALENDAR OF MEETINGS

NATIONAL

Jan. 16-20	Hawaii Gastroenterology and Hepatology Conference (sponsored by Honolulu Med Group Research and Education Foundation)—Mauna Kea Beach Hotel, Hawaii
Jan. 17-21	American Association for the Study of Headache—Marriott's Camelback Inn, Scottsdale, Ariz.
Jan. 19-21	Southern Society for Pediatric Research—Hilton Hotel, New Orleans
Jan. 21-25	Immune Consequences of Thermal and Traumatic Injuries (sponsored by Am Burn Assoc and Univ of Utah)—Snowbird Resort, Snowbird, Utah
Jan. 22-27	NAFA CME Ski Meeting (sponsored by Nevada Acad of Family Physicians)—Sahara Tahoe Hotel, South Lake Tahoe, Nev.
Jan. 27-29	Midwinter Radiology Conference (sponsored by Los Angeles Radiological Society)—Century Plaza Hotel, Los Angeles
Jan. 29-Feb. 3	American College of Medical Imaging—Sahara Tahoe Hotel, Lake Tahoe, Nev.
Jan. 29-Feb. 4	Post Conference Seminar (sponsored by Los Angeles Radiological Society)—Mauna Lani Bay Hotel, Kohala Coast, Hawaii
Feb. 2-5	Southwest Allergy Forum (sponsored by Baylor College of Med.)—Westin Galleria Hotel, Houston
Feb. 5-8	Interventional Neuroradiology Seminar (sponsored by Univ. of S. Florida)—Lake

	Buena Vista, Fla.
Feb. 5-9	Lake Tahoe Winter Vitreoretinal Symposium (sponsored by Univ. of California Davis)—Tahoe City, Calif.
Feb. 6-8	American Society for Surgery of the Hand—Hilton, Atlanta
Feb. 8-9	American Orthopaedic Foot Society—Atlanta
Feb. 9-11	Society of University Surgeons—Palmer Hotel, Chicago
Feb. 9-14	American Academy of Orthopaedic Surgeons—Georgia World Congress Center, Atlanta
Feb. 15-17	National Cancer Communications Conference (sponsored by NCI and ACS)—Washington, D.C.
Feb. 15-18	American Association of Orthopaedic Medicine—Scottsdale, Ariz.
Feb. 15-19	American College of Nuclear Physicians—Sheraton Harbor Island, San Diego
Feb. 16-17	Acquired Immune Deficiency Syndrome Symposium (sponsored by Drug Development Institute of Amer.)—New York
Feb. 18-25	Winter Symposium of Hematologic Malignancies (sponsored by Univ. of Arizona Cancer Ctr.)—Snowbird, Utah
Feb. 24-26	Virginia Chapter, American Academy of Pediatrics/Virginia Pediatric Society Annual Meeting—Williamsburg Conference Center, Williamsburg, Va.
Feb. 26-March 1	American Association for Pediatric Ophthalmology and Strabismus—Marriott's Mark Resort, Vail, Colo.
Feb. 27-March 1	Multidisciplinary Microsurgery (sponsored by Southern Baptist Hosp. and Louisiana State Univ.)—Mardi Gras, New Orleans

ANNOUNCEMENT

Pursuant to the provisions of a Federal Trade Commission consent order, State Volunteer Mutual Insurance Company makes the following announcement:

State Volunteer Mutual Insurance Company will insure any otherwise insurable physician at non-discriminatory rates regardless of whether he or she has a contractual or other particular financial arrangement with nurse-midwives. It will evaluate each physician's insurability on an individual basis based on sound, non-discriminatory underwriting criteria. SVMIC will apply the same underwriting criteria to all physicians who are affiliated with nurse-midwives, regardless of the particular form of the arrangement between the physician and the nurse-midwives.

If SVMIC determines not to insure a physician who is affiliated with nurse-midwives, it will notify the physician in writing of the reasons for the determination. The notice will specify the underwriting criteria not met by the physician and explain in what manner the criteria were not met. It will advise that upon written request, SVMIC will provide a hearing at which the physician will have an opportunity to respond to the preliminary determination. SVMIC will also notify the physician in writing of its final determination and, if a decision not to insure the physician has been made, the specific reasons for the determination.

Dr. Thurman Shipley Receives Award



Dr. Thurman Shipley, center, secretary-treasurer of the Putnam County Medical Society for the past 50 years, was presented a TMA House of Delegates Commendation Resolution at a recent meeting of the society in Cookeville by Dr. George W. Holcomb, Jr., Nashville, immediate past president of TMA. Looking on is Mrs. Shipley. The plaque recognizes Dr. Shipley's many contributions to the practice of medicine.

Highlights of the TMA Board of Trustees Meeting

October 9, 1983

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular fourth quarter meeting in Nashville on October 9, 1983.

THE BOARD:

Executive Committee Actions

Approved Executive Committee actions, including sponsorship of a membership survey, commissioned by SVMIC, regarding the effect of the state's medical legal climate on each physician's practice; and presentation of TMA Leadership Conference on Feb. 19, 1984, to discuss the future of organized medicine, competition and legislation.

Impaired Physician Program Part Time Medical Director

Appointed Dr. David T. Dodd, Murfreesboro, as the part-time medical director of the TMA Impaired Physician Program.

Committee on Governmental Medical Services

Received a report that the Committee on Governmental Medical Services had reviewed the issue referred by the Board, regarding organized medicine's endorsement of "indemnity" vs. UCR reimbursement by third party payors. The AMA Council on Medical Services in June 1983 recommended that medicine endorse indemnity as the preferred method of reimbursement for professional services. The Council met again in September and reconsidered its earlier position and recognized both methods had merit and that medicine should move away from classical endorsement of UCR. The Board agreed that both positions have merit but the right should be reserved for physicians to set their fee and be able to bill for the difference between what the insurance company pays and the physician's fee. The Board reaffirmed its previous position regarding mandatory second surgical opinions as adopted on Aug. 24, 1978, by the TMA Executive Committee, and declined to support a program planned by the Tennessee Department of Health and Environment in the Medicaid Program, requiring second opinions on five elective surgical procedures.

Committee on Scientific Affairs

Received a report from the Committee on Scientific Affairs that (1) specialty societies which fail to submit evaluation forms of their scientific sessions after the annual meeting would be ineligible the following year for Category 1 credit toward the AMA Physician's Recognition Award; and (2) a physician representing each specialty society will be required to be in attendance at the planning session in 1984.

IMPACT

Received a report that Independent Medicine's Political Action Committee—Tennessee (IMPACT) has increased membership this year by 200, with a total of 970 members. The Board appointed Dr. Nat E. Hyder, Jr., for a one-year term as director on the IMPACT Board representing the first district, and reappointed all directors presently serving in the second through ninth districts to serve one-year terms as directors on the IMPACT Board.

Request from Tennessee Academy of Ophthalmologists

Voted to support U.S. Senate Joint Resolution 54, which would establish January of each year as national eye health care month. Sponsorship of this resolution is to be requested of Senators Baker and Sasser.

Ad Hoc Selection Committee for the Chief Medical Officer

Received a report that the TMA Ad Hoc Selection Committee had reviewed all applications for the position of Chief Medical Officer for the State of Tennessee and interviewed two candidates.

Third Quarter Financial Statement and Proposed Budget

Approved the TMA Operating Report for the first nine months of 1983 showing receipts, disbursements, expenditures and an investment account summary, and also approved a 1984 proposed budget of $1,046,775 with a total estimated income of $1,010,000.

TMA continuing medical education opportunities

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	Grant W. Liddle, M.D.
Gastroenterology	Dewey G. Dunn, M.D.
General Internal Medicine	W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Infectious Diseases	William Schaffner, M.D.
Medicine	Grant W. Liddle, M.D.
Neurology	Gerald M. Fenichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Arthur L. Brooks, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Marc H. Hollender, M.D.
Radiology	A. Everett James, Jr., Se.M., J.D., M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	William F. Meacham, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Richard Hanekel, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	Frederick K. Kirchner, M.D.

Eligibility: All licensed physicians are eligible. *Credit:* AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. *Application:* For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Feb. 23-24	Allocation of Scarce Health Resources (9 hours)
March 23	Problems in Hypertension: Treatment Resistance and Non-Compliance—Cadiz, Ky. (7 hours)
April 20-21	Annual Barney Brooks Lecture and the H. William Scott Society (10 hours)
April 23-27	Annual James C. Overall Lectureship in Pediatrics (12 hours)
April 27-28	Gynecologic Oncology and The Conrad Julian Memorial Lecture in Gynecolgic Oncology (10 hours)
May 20-24	Vanderbilt Orthopedic Society—Bermuda (10 hours)
May 23-24	Annual Seminar in Psychiatry (for nonpsychiatrists) (10 hours)
May 24-June 9	Radiology in China—Hong Kong (40 hours)
May 31-June 2	Behavioral Neurology: Higher Cortical Functions and the Brain (17 hours)
June	Vanderbilt Ophthalmology Residents Alumni Day (7 hours)
June 6-10	Family Medicine Review (35 hours)
June 7-23	Medicine in China—Hong Kong (40 hours)
July 17-21	Annual Symposium on Contemporary Clinical Neurology—Hilton Head, S.C. (16 hours)
July 19-21	Vanderbilt-Bowman Gray 6th Annual Mountain Meeting in Internal Medicine—Asheville, N.C. (12 hours)
Aug. 8-11	Annual Diagnostic Sonography Update—Orlando, Fla. (17 hours)
Aug. 16-Sept. 1	Surgery in China—Hong Kong (40 hours)
Oct. 13-29	Obstetrics and Gynecology in China—Hong Kong (40 hours)

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Ramon S. Harris, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Kermit R. Brown, M.D.
	Qamar A. Kahn, M.D.
Chest Disease	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
	Edward A. Mays, M.D.
Dermatology	Thomas W. Johnson, M.D.
	David Horowitz, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
General Medicine	Edward A. Mays, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
Pathology	Louis D. Green, M.D.
	John C. Ashhurst, M.D.
Pediatrics	E. Perry Crump, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	David B. Todd, M.D.
	Ira D. Thompson, M.D.
Urology	Marcelle R. Hamberg, M.D.

Fee: $100 per week. *Credit:* AMA Physician's Recognition Award (Category 1), AAFP Continuing Education Accreditation, and Continuing Education Units by Meharry Medical College. *Application:* For further information contact Frank A. Perry, Sr., M.D., Director, Continuing Education, Meharry Medical College, 1005 18th Ave. North, Nashville, TN 37208, Tel. (615) 327-6235.

UNIVERSITY OF TENNESSEE

Continuing Education Schedule

Memphis

Feb. 2-3	Surgical Ostomies
Feb. 25-26	Advances in Radiology
March 17	Update in Emergency Medicine
March 18-23	17th Annual Review Course for the Family Physician
June 11-13	Family Medicine Update—New Orleans
June 14-16	Cardiology Update—New Orleans

Knoxville

June 11-13	Expert Testimony Workshop—New Orleans
June 14-16	Otolaryngology for the Primary Care Physician—New Orleans

For information contact Ms. Jean Taylor, Office of Continuing Medical Education, University of Tennessee College of Medicine, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

EAST TENNESSEE STATE UNIVERSITY

Continuing Education Schedule

Jan. 7-13	Medical Updates V: A Review of Recent Advances in Medicine—Park City, Utah
Jan. 19	Controversies in the Diagnosis and Early Management of Breast and Colon Cancer—ETSU
February	School Health VI—ETSU
April 27-29	4th Annual 121st U.S. Army Reserve Command Medical Seminar—Gatlinburg

For information contact Sue Hutchinson, M.P.H., Program Coordinator, Office of CME, ETSU Quillen-Dishner College of Medicine, P.O. Box 19660A, Johnson City, TN 37614, Tel. (615) 928-6426, ext. 204.

IN SURROUNDING STATES

UNIVERSITY OF KENTUCKY

Continuing Education Schedule

Feb. 19-24	15th Family Medicine Review—Session I
March 9-11	Advanced Cardiac Life Support Courses

For information contact Frank R. Lemon, M.D., Continuing Medical Education, College of Medicine Office Building, University of Kentucky, Lexington, KY 40536, Tel. (606) 233-5161.

MEDICAL COLLEGE OF VIRGINIA

Feb. 10-12	Dermatology and Internal Medicine: Therapeutic Update on Skin Diseases—The Homestead, Hot Springs, Va. *Credit:* 15.25 hours AMA Category 1. *Fee:* $250.

For information contact Mrs. Randy Casey, Office of CME, Box 48, MCV Station, Richmond, VA 23298, Tel. (804) 786-0494.

OF SPECIAL INTEREST

AMERICAN CANCER SOCIETY

March 15-17	4th National Conference on Human Values and Cancer—New York. *Credit:* 15.5 hours AMA Category 1.

For information contact Diane J. Fink, M.D., National Conference on Human Values and Cancer, American Cancer Society, 777 Third Ave., New York, NY 10017, Tel. (212) 371-2900.

KNOXVILLE ACADEMY OF MEDICINE

Feb. 18-25	5th Annual Knoxville Academy of Medicine Educational Ski Trip—Snowmass, Colo.

For information contact I. Ray King, M.D., 939 Emerald Ave., Knoxville, TN 37917, Tel. (615) 546-5335; or the KAM, 422 W. Cumberland Ave., Knoxville, TN 37902, Tel. (615) 524-4676.

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

Jan. 23-27	Tumorous Conditions of the Bones and Soft Tissues—San Diego. *Credit:* 38.5 hours. *Fee:* $650.
Jan. 30-Feb. 3	Current Methods in Blood Banking and Immunohematology—Lake Buena Vista, Fla. *Credit:* 31.5 hours. *Fee:* $650.
Feb. 6-10	Advanced Microbiology: Recent Developments and New Frontiers—Dallas. *Credit:* 32 hours. *Fee:* $625.
Feb. 6-10	Leukemias and Lymphomas—Charleston, S.C. *Credit:* 30 hours. *Fee:* $650.
Feb. 13-17	Laboratory Tests for the Diagnosis of Autoimmune Diseases—San Antonio, Tex. *Credit:* 24 hours. *Fee:* $550.

For information contact ASCP, Regional Educational Activities, 2100 W. Harrison St., Chicago, IL 60612, Tel. (312) 738-1336, ext. 129.

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For information contact James P. Freeman, D.D.S., Davis Clinic Bldg., LaFollette, TN 37766. Phones (615) 562-2329, office; (615) 562-7510, home.

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Group of five in a town of 25,000; three board certified and two board eligible in internal medicine. Want a person to replace one of our group who is retiring. Prefer a general internist, but someone with subspecialty training, yet interested in doing primary internal medicine is acceptable. Generous minimum salary guarantee.

Send CV and other pertinent information to Dr. D. W. Frederiksen, 2120 Crestmoor Rd., Nashville, TN 37215.

PSYCHIATRIST NEEDED

Georgia or Florida. Expanding program in need of two additional psychiatrists. JCAH accredited hospital for children and adolescents. Position includes diagnostic evaluations, treatment and some staff development. Large effective staff, utilizing multidisciplinary concept. Must be licensed or license eligible in Georgia or Florida and have experience with children and adolescents. Salary range: $66,000 to $84,000.

For information call or write J. Henry Evans, Administrator, 4771 Anneewakee Road, Douglasville, GA 30135, telephone (404) 942-2391.

EMERGENCY MEDICINE OPPORTUNITIES AVAILABLE

Part-time and full-time positions available throughout Middle Tennessee. Attractive features include: competitive income, professional liability insurance and flexible scheduling. Weeknight, weekday and weekend shifts varying from 12 to 60 hours available.

For complete details respond in confidence to: Mr. Randy Vernon, Spectrum Emergency Care, Inc., 1355 B Lynnfield Road, Suite 184, Memphis, TN 38119, telephone (901) 761-4441.

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1983 MEMBERSHIP ROSTER
TENNESSEE MEDICAL ASSOCIATION

An alphabetical listing of members of the Tennessee Medical Association by county medical society is published as a service to the membership. An asterisk (*) denotes physicians exempt from dues. A dash(–) denotes a student member.

BEDFORD COUNTY MEDICAL SOCIETY

BARNES, DONALD O, SHELBYVILLE
BEAVERS, LANA SHARON, SHELBYVILLE
* CHAMBERS, WALLACE LEE, SHELBYVILLE
* COOPER, ALBERT LEE, SHELBYVILLE
DERRYBERRY, JOHN S, SHELBYVILLE
FARRAR, TAYLOR, SHELBYVILLE
FELCHALS, JOSEPH H, SHELBYVILLE
JAYAKODY, FRANK LORENZ, SHELBYVILLE
JOHNSON, SUE PAINE WELCH, SHELBYVILLE
NELSON, DANNY LEE, SHELBYVILLE
* MOULDER, GRACE E, SHELBYVILLE
OWNBY, FRED GILLARD, BELL BUCKLE
RICH, EARL FREEMAN, SHELBYVILLE
RICHARDS, AUBREY THOS, SHELBYVILLE
* ROGERS, BENJ CARL, SHELBYVILLE
SELLS JR, SAMUEL P, SHELBYVILLE
STUBBLEFIELD, CARL THOS, SHELBYVILLE
WOMACK, SARA, SHELBYVILLE

BENTON-HUMPHREYS COUNTY MEDICAL SOCIETY

ALI, MAYSOON SHOCAIR, WAVERLY
ALI, SUBHI DAWUD SUBOH, WAVERLY
BLACKBURN, WM H, CAMDEN
BLANTON, HAROLD L, COURTLAND, AL
BOURNE JR, ROBERT I, CAMDEN
BUTTERWORTH, JOE S, CAMDEN
GANDHI, MANHAR C, MEMPHIS
HARTLEY, MARK F, WAVERLY
LAWSON, JAMES J, NEW JOHNSONVILLE
MCCLURE, WALLACE JOE, WAVERLY
NAGY, RUBA, WAVERLY
NAGY, LOIS, WAVERLY
SKELTON, M ANGELA, WAVERLY
STEPHENS, JOS WM, WAVERLY
WALKER, ARTHUR WINFREY, WAVERLY

BLOUNT COUNTY MEDICAL SOCIETY

AGEE, CLIVER KING, MARYVILLE
AHN, KYUNG M, MARYVILLE
AKIN, HOBART E, MARYVILLE
BEARD, MARVIN ROBISON, MARYVILLE
BELL, W KEN, MARYVILLE
BLANKS, BILLY HARRELL, MARYVILLE
BOLLINGER JR, JOHN A, MARYVILLE
BOWEN, JOHN H, MARYVILLE
BURKHART, PATRICK H, MARYVILLE
CALLAWAY JR, HENRY A, MARYVILLE
CALLAWAY, JAMES MILLER, MARYVILLE
CHRISTOFFERSON, JAMES W, MARYVILLE
COWAN, JOHN DAVID, MARYVILLE
CROWDER, CLAY G, MARYVILLE
* CROWDER, WM C, MARYVILLE
CROWDER, WM WILSON, MARYVILLE
DELASHMIT, JAMES RICHARD, MARYVILLE
DORR, DAVID C, KNOXVILLE
DREYER, RUSSELL HARWELL, MARYVILLE
ELLINGTON, ERIC PATRICK, MARYVILLE
ELLIOTT, C DALE, MARYVILLE
ELLIOTT, WM EARL, MARYVILLE
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* AYRES JR, JOHN C, MEMPHIS
BAILEY, JAMES WESLEY, MEMPHIS
- BAILEY, PATRICK VANCE, MEMPHIS
- BAILEY, WILLIAM KEVIN, MEMPHIS
BAIRD, JOHN WM, MEMPHIS
- BAKER, CAROLYN LESLIE, MEMPHIS
BAKER, IRVIN C, MEMPHIS
BAKER, JOS E, MEMPHIS
BAKER, MALCOLM A, ARLINGTON
BALF, GEO FRANKLIN, MEMPHIS
- BALLARD, THOMAS KELLY, MEMPHIS
BALLENGER, REID LANGFORD, MEMPHIS
BANG, HOI JINE, GERMANTOWN
* BARBER, ROY M, MEMPHIS
BARKER, GEO LOVELACE, MEMPHIS
- BARKER, JOSEPH DAVID, MEMPHIS
BARNES, ROY JAMES, MEMPHIS
- BARNETT, ARDEN O, MEMPHIS
BARR, JAMES R, MEMPHIS
- BARRON, DAVID MICHAEL, MEMPHIS
BASKIN, REED CARL, MEMPHIS
* BASSETT, GEO H, MEMPHIS
BATES, RICHARD GREENE, MEMPHIS
BATTAILE, JOS CHANDLER, MEMPHIS
BATTAILE, NAJIBA A H, MEMPHIS
BEALE, HOWARD LEO, MEMPHIS
BEATUS JR, BENJ LOUIS, MEMPHIS
BEATY JR, JAMES HAROLD, MEMPHIS
- BEAVER, TERINELL, MEMPHIS
BEEMAN, HELEN G, MEMPHIS
- BEIS, RUSSELL O, MEMPHIS
BELL JR, EMMETT DIXON, MEMPHIS
BELL, JAMES SPENCER, MEMPHIS
BELL, STEVEN HUNTER, MEMPHIS
- BELL, THOMAS CHARLES, CHATTANOOGA
BELLOTT JR, ARTHUR L, MEMPHIS
BERTORINI, TULIO E, MEMPHIS
BEVILACQUA, ALDO ROMANO, MEMPHIS
BICKS, RICHARD O, MEMPHIS
BIELSKIS JR, WILLIAM M, MEMPHIS
BIGGS, JACK C, MEMPHIS, TN
* BILES JR, JAMES O, MEMPHIS
BIROSONG JR, EMMITT S, MEMPHIS
BISHOP, CALVIN R, MEMPHIS
BISNO, ALAN LESTER, MEMPHIS
* BISSON, WHEELOCK A, MEMPHIS
BISWAS, AJIT KUMAR, MEMPHIS
* BLACK JR, WM THOS, MEMPHIS
BLACK, TIMOTHY LEE, MEMPHIS
BLACKWELL JR, SAML JOS, MEMPHIS
BLACKWELL, CAROLYN FISER, MEMPHIS
BLAIR, JOHN RODNEY, MEMPHIS
BLANO JR, BASIL A, MEMPHIS
BLANO, GEO B, MEMPHIS
- BLANKENSHIP, BRAD EDWIN, MEMPHIS
- BLANTON, DONALD MCLAIN, MEMPHIS
* BLEECKER, PHILIP B, MEMPHIS
BLUMEN, HERBERT, MEMPHIS
BLUMENFELD, HARRY BERNARD, MEMPHIS
BLYTHE III, JOS ALFRED, MEMPHIS
BOALS III, JOS CALLOWAY, MEMPHIS
BOALS, JAMES WM, MEMPHIS
BOBO, ROBT THOMPSON, MEMPHIS
- BOGGS, MARY CHARLAYNE, MEMPHIS
- BOOM, ALAN DEXTER, MEMPHIS
BOONE, HOWARD A, MEMPHIS
BOONE, JAMES E, MEMPHIS
BOONE, THIPAVAN, MEMPHIS
BOOTH, JAMES LIVINGSTON, MEMPHIS
BOSWELL, JAMES LIONEL, MEMPHIS
BOSWELL, RICHARD LEE, MEMPHIS
* BOULOIN, MARY E, CLARKSDALE, MS
- BOUNOS, INEZ B, MEMPHIS
BOURLAND JR, ROBT LEON, MEMPHIS
BOURLAND, WM LANDESS, MEMPHIS
- BOWEN, JANET WILDER, MEMPHIS
* BOWERMAN, EARL P, MEMPHIS
BOYD JR, ALLEN STREET, MEMPHIS
* BRADLEY, JAMES FREDERICK, MILLINGTON
BRADY, BOYER M, MEMPHIS
- BRANDON, THOMAS ALBERT, MEMPHIS
- BRANNON, CHARLES TRAVIS, MEMPHIS
BRAUN, WINSTON, MEMPHIS
BRIDGES, JAMES T, MEMPHIS
BRITT, LOUIS GOODNO, MEMPHIS
BRONSTEIN, MAURY M, MEMPHIS
BROOKS, BROWN, MEMPHIS
- BROOKS, MARIA T, MEMPHIS
BROWN, JAMES S, NASHVILLE
- BRUNNER, RICHARD GARMANY, MEMPHIS

BRUNT, CHAS HAL, MEMPHIS
BRYAN, THORNTON E, MEMPHIS
BRYANT, JAMES W, MEMPHIS
BUCHALTER, ROBT, MEMPHIS
BUCHIGNANI, JOHN SHEA, MEMPHIS
BUCHIGNANI, JOS ANTHONY, MEMPHIS
BUCKLEY JR, MADISON H, MEMPHIS
- BUCKNER JR, WILLIAM F, METAIRIE, LA
BURANAPIYAWONG, ARKOM, GERMANTOWN
BURKE, LARRY D, MEMPHIS
BURKLE III, GEO HENRY, GERMANTOWN
BURNETT, CHARLES ROLAND, MEMPHIS
BURROW, WM BOOKER, MEMPHIS
BURTON, WILLIAM OUER, MEMPHIS
BUSBY, MICKY L, MEMPHIS
- BUSTAMANTE, DANIEL R, MEMPHIS
BUTLER, DOROTHY ANN HICKS, MEMPHIS
BUTLER, RICHARD MASON, MEMPHIS
BUXTON, BERTRAM H, MEMPHIS
BYAS, JAMES S, MEMPHIS
CAFFEY, SHED H, MEMPHIS
CALANDRUCCIO, ROCCO A, MEMPHIS
CALOWELL, EDWARD PRICHARD, MEMPHIS
CALLISON, MASTON K, MEMPHIS
CAMACHO, ALVRO MANUEL, MEMPHIS
* CAMPBELL, EDWARD G, MEMPHIS
CANALE, DEE JAMES, MEMPHIS
CANALE, JAMES LAWRENCE, MEMPHIS
CANALE, STURLA TERRANCE, MEMPHIS
CANCIO, CONSOLACION V, MEMPHIS
CANNON, BLAND WILSON, MEMPHIS
CAPE, CHAS ALBERT, MEMPHIS
CARA JR, DOMINIC JOS, MEMPHIS
CARADINE JR, ROBT SIDNEY, MEMPHIS
CARNESALE, PETER GUYDON, MEMPHIS
CARROLL, DAVID S, MEMPHIS
CARRUTHERS JR, DANL F, MEMPHIS
* CARTER JR, LOUIS L, MEMPHIS
* CARTER, HARVEY WALLACE, MEMPHIS
CARTER, JAMES ROLAND, MEMPHIS
* CARTER, LOUIS L, MEMPHIS
CASHION, ERNEST L, MEMPHIS
CHAPPELL, FENWICK W, MEMPHIS
CHAPPUIS, JAMES LLOYD, MEMPHIS
CHARLES, STEVEN THOS, MEMPHIS
CHATTERJEE, SHEKHAR C, MEMPHIS
CHAUHAN, DINESH N, MEMPHIS
CHEEK, RICHARD CALVIN, MEMPHIS
CHESNEY, CAROLYN M, MEMPHIS
CHISOLM, JOHN COBEEN, MEMPHIS
CHRISTOPHER, ROBT PAUL, MEMPHIS
CHUANG, HOWARD JYI JUANG, MEMPHIS
CLARENDON, COLIN C D, MEMPHIS
CLARK JR, DWIGHT WITT, MEMPHIS
* CLARK, GLENN MARSH, MEMPHIS
- CLARK, JIMMY R, MEMPHIS
- CLARK, SALLY B, MEMPHIS
* CLARKE, CHAS L, MEMPHIS
- CLOSE, PAMELYN, MEMPHIS
COCKE JR, EDWIN W, MEMPHIS
COCKROET, ROBT LAWRENCE, MEMPHIS
- COEER, CYNTHIA ANNE, MEMPHIS
COHEN, LAWRENCE LOUIS, MEMPHIS
* COHEN, MORRIS D, MEMPHIS
COLE III, WILLIAM L, MEMPHIS
COLE JR, F HAMMOND, MEMPHIS
COLE, ERANCIS HAMMOND, MEMPHIS
COLEMAN JR, SIDNEY A, MEMPHIS
COLLINS, BLAINE C, MEMPHIS
COLLINS, DAVID NEWTON, MEMPHIS
COLLINS, ERANK H, MEMPHIS
COLLINS, JAMES H, MEMPHIS
CONRAD, LYNN WILSON, MEMPHIS
CONWAY, JOHN PATRICK, MEMPHIS
- COOK, WILLIAM GREGORY, MEMPHIS
COOPER, CHARLIE WALTER, MEMPHIS
COORS, GEO A, MEMPHIS
COPELAND, GEO D, MEMPHIS
CORNELIUS, LELAND RAEBURN, SOUTHAVEN, MS
COUCH SR, CHAS EDWARD, MEMPHIS
COURINGTON, DORIS PAYNE, MEMPHIS
COWAN JR, GEORGE S M, MEMPHIS
COX III, SAM J, MEMPHIS
- COX JR, JAMES W, KNOXVILLE
COX, CLAIR EDWARD, MEMPHIS
- CRAIG, CAROL S, KNOXVILLE
CRAVEN, RUFUS EDGAR, MEMPHIS
- CRAWFORD II, DONALD A, MEMPHIS
CRAWFORD, JOHN D, COLLIERVILLE
CRAWFORD, LLOYD V, MEMPHIS
- CRENSHAW JR, ANDREW H, MEMPHIS
CRENSHAW, ANDREW HOYT, MEMPHIS
CRESON JR, THOMAS K, MEMPHIS
CREWS, JOHN T, MEMPHIS
CRISLER JR, HERMAN A, MEMPHIS
* CRISLER JR, JOS A, MEMPHIS
CROCKARELL, JOHN REAMS, MEMPHIS
CROCKER, DIANE WINSTON, MEMPHIS
CROCKER, ROBT A, MEMPHIS
CROCKETT JR, ROBT N, MEMPHIS
- CROOK JR, JERRALL P, MEMPHIS
CROSBY, VIRGIL GLENN, MEMPHIS
CROWE JR, LEE RAY, MEMPHIS
CROWN, LOREN ARTHUR, MEMPHIS
CRUMRINE, ROBERT S, MEMPHIS
CRUPIE, JOS E, MEMPHIS
- CRUPIE, MARC J, MEMPHIS
CRUTHIRDS, TERRY PARK, MEMPHIS
CUMMINGS, JOHN M, MEMPHIS
CUMMINS, ALVIN JOS, MEMPHIS
CUNNINGHAM, DAVID LANE, MEMPHIS
CURLE, RAY EUGENE, MEMPHIS
CURREY, THOS ARTHUR, MEMPHIS
CURTIS, KAREN LOUELLA, MEMPHIS
DANG, LUU HUY, GERMANTOWN
DAUGHERTY, DAVID R, MEMPHIS
DAVIDSON III, ORIN L, MEMPHIS
DAVIS JR, JESSE THEO, MEMPHIS
DAVIS, EDNA M EITZJARREL, MEMPHIS
DAVIS, HARRY L, MEMPHIS
DAVIS, THOS ALLEN, MEMPHIS
DE MERE, MC CARTHY, MEMPHIS
DE SAUSSURE JR, R L, MEMPHIS
DE SHAZO, MICHAEL HENRY, MEMPHIS
- DEAN JR, RHEA WESLEY, MEMPHIS
DEATON, WM JERRY, MEMPHIS
- DEDMON, CINDY TURNER, MEMPHIS
DELLINGER JR, HUBERT L, MEMPHIS
- DEMENT, JOSEPH MILLER, IRMO, SC
- DEMOS, JANE HOWELL, MEMPHIS
DEMPSEY, THOMAS JACKSON, MEMPHIS
- DEVALL, DIANA D, MEMPHIS
DEWEESE, MELVIN WAYNE, MEMPHIS
* DIGGS, LEMUEL WHITLEY, CORDOVA
DILAWARI, RAZA ALI, MEMPHIS
DILTS JR, PRESTON VINE, MEMPHIS
DIRMEYER, PHILLIP HAYS, MEMPHIS
DISMUKE, STEWART EDWARDS, MEMPHIS
DISMUKES, DON ELMO, MEMPHIS
DISNEY, JERE MICHAEL, MEMPHIS
DOBSON, JOHN M, MEMPHIS
DODGE, HERBERT SHUBERT, MEMPHIS
* DORIAN, JOHN BERNARD, SAUDI ARABAI
- DOTY III, THOMAS W, MEMPHIS
- DOUGLAS, JEFFREY LEE, MEMPHIS
DOWLING, CHAS VICTOR E, MEMPHIS
DRAKE, ARNOLD MANNAS, MEMPHIS
DRENNING, PAUL THOMAS, MEMPHIS
DREWRY JR, RICHARD DANL, MEMPHIS
* DU BARD, HORTON GEE, MEMPHIS
DUPERSTEIN, LARRY EDWIN, MEMPHIS
- DUROSE, DIANE HUNTER, MEMPHIS
- DUCKWORTH, HUGH KELLY, MEMPHIS
DUCKWORTH, JOHN KELLY, MEMPHIS
DUCKWORTH, NANCY C H, MEMPHIS
DUCKWORTH, PATRICIA PEARL, MEMPHIS
DUGDALE, MARION, MEMPHIS
DUGGIRALA, PRASAD S, MEMPHIS
DUGGIRALA, VIJAYA L, MEMPHIS
DUKE, ODN DE WINDLE, MEMPHIS
DUNAVANT JR, WM DAVID, MEMPHIS
DUNAVANT, WM DAVID, MEMPHIS
DUNAWAY, DAN ALEXANDER, MEMPHIS
DUNCAN JR, JAMES T, MEMPHIS
DUNCAN, JERALD MARK, MEMPHIS
DURFEY, JOHN QUINCY, MEMPHIS
EASON, HAMEL BOWEN, MEMPHIS
EASON, LESLIE EDMUND, MEMPHIS
ECONOMIDES, NICHOLAS-JOHN, MEMPHIS
EDGCOMB, LESLIE PAUL, MEMPHIS
EDMONSON, ALLEN S, MEMPHIS
EDWARDS, NEIL B, MEMPHIS
EGGERS, FRANK M, MEMPHIS
ELKINS, THOMAS E, MILLINGTON
ELLIOTT, RODNEY GORHMAN, MEMPHIS
EMMETT, JOHN ROY, MEMPHIS
ENGELBERG, JERRY, MEMPHIS
ENNIS, RICHARD LYN, MEMPHIS
ENSOR, JAMES K, GERMANTOWN
EPSTEIN, EUGENE U, MEMPHIS
* ERICKSON, CYRUS CONRAD, MEMPHIS
* ETTELDORF, J N, MEMPHIS
* ETTMAN, IRVING KELSEY, MEMPHIS
* EVANS, JOHN D, MEMPHIS
* EVANS, MILTON LEE, MEMPHIS
* EVERETT JR, BENNETT E, MEMPHIS
FABIAN, TIMOTHY CHARLES, MEMPHIS
FALVEY, WILLIAM DAVIS, MEMPHIS
FANCHER, WILLIAM H, MEMPHIS
- FANT, GEORGE ERNEST, MEMPHIS
FAQUIN, CORNELL CHAS, MEMPHIS
FARLEY, HAROLD G, MEMPHIS
FARRAR, TURLEY, MEMPHIS
FARROW JR, C CRESTON, MEMPHIS
FAULKNER, WM LAWRENCE, MEMPHIS
FEILD, JAMES RODNEY, MEMPHIS
* FEINSTEIN, HAROLD, MEMPHIS
FERGUSON, JOHN MITCHELL, MEMPHIS
FERRELL, THADDEUS HAGAN, MEMPHIS
- FESMIRE, WILLIAM MURRAY, MEMPHIS
FIDLER JR, WM JONAS, MEMPHIS
- FIELDS, LOUIS B, MEMPHIS
FINK, ROBERT DAVID, MEMPHIS
FIORANELLI, RAYMOND JAMES, MEMPHIS
FISHER JR, JOSEPH N, MEMPHIS
FISHER, DANL F, MEMPHIS
FISHER, ROBT MOORE, MEMPHIS
FLANAGAN, JAMES BARRY, MEMPHIS
FLANAGAN, WILLIAM H, MEMPHIS
FLANARY, JAMES S, COLLIERVILLE
- FLANNIGAN, WALLACE B, MEMPHIS
FLEMING, IRVIN DURANT, MEMPHIS
FLEMING, JAMES CHRISTIAN, MEMPHIS
FLEMING, JULIAN GLENN, MEMPHIS
FLINN JR, GEO SHEA, MEMPHIS
FLORENDO, NOEL TADIAK, MEMPHIS
FLOWERS, ARTHUR R, MEMPHIS
FLOWERS, WM PARKS, MEMPHIS
- FOLGER, WALTER H, MEMPHIS
FONER, MAX, MEMPHIS
FONG, TERRY, GERMANTOWN
- FORSYTHE, PHILLIP DAVID, MEMPHIS
FORTUNE, JAMES EVERETT, MEMPHIS
FOUNTAIN JR, FRANCIS E, MEMPHIS
FRANCIS JR, HUGH, MEMPHIS
FRANCISCO, JERRY THOS, MEMPHIS
FRANKLIN, EDGAR K, MEMPHIS
FRANKUM, CHAS EUGENE, MEMPHIS
FREE, LOVELY ARZETTA, MEMPHIS
FREEMAN, BARNEY LYNN, MEMPHIS
FREEMAN, JERRE MINOR, MEMPHIS
FRENCH, WM E, MEMPHIS
FRIEDMAN, HARRY, MEMPHIS
FUDGE, TOMMY L, MEMPHIS
FUSTE, RICARDO R, MEMPHIS
FUTRELL, THOMAS WALTER, MEMPHIS
* GADBERRY, EUGENE WARNER, MEMPHIS
GALINDEZ, TELMO, MEMPHIS
GALYON, JAMES THEODORE, MEMPHIS
GAMMILL, STEPHEN LANE, MEMPHIS
- GANT, LINDA LONG, MEMPHIS
GARBARINI JR, JOS C, MEMPHIS
GARDNER JR, LAWRENCE G, MEMPHIS
GARDNER, JOHN HARVEY, MEMPHIS
GARRETT, HARVEY E, MEMPHIS
GARRETT, RICHARD HENRY, MEMPHIS
* GAY, JAMES R, MEMPHIS
GAYDEN, JOHN O, MEMPHIS
GEHI, MOHAN M, MEMPHIS
* GEHORSAM, ELSBETH, MEMPHIS
GELFAND, MICHAEL S, MEMPHIS
GEORGE, LEWIS WATSON, MEMPHIS
GERALD, BARRY ELMO, MEMPHIS
GESHKE, TERRENCE EDWARD, MEMPHIS
GETTELEINGER, THOMAS C, MEMPHIS
- GILLESPIE, TIMOTHY GRAHAM, MEMPHIS
GILLULY, JOHN JOS, MEMPHIS
GILTMAN, LARRY IRWIN, MEMPHIS
GINN, BOBBY H, MEMPHIS
* GISH, GEO EDWARD, MEMPHIS
GIVENS, JAMES ROBT, MEMPHIS
GLADDING, THOS CONGDON, MEMPHIS
- GLASS, BRIAN A, MEMPHIS
- GLASS, JEFFREY T, MEMPHIS
GLAZER, LOUIS, MEMPHIS
GODSEY, WM COLE, MEMPHIS
GOKTURK, TURGUT KEMAL, MEMPHIS
GOLD, ROBERT E, MEMPHIS
* GOLDBERG, FRED A, MEMPHIS
GOLDHAMMER, PHILLIP, MEMPHIS
GOLDIN, MELVIN LESTER, MEMPHIS
GOOCH, JERRY BURTON, MEMPHIS
GOODE, FLETCHER HOWARD, MILLINGTON
GOODMAN JR, THOMAS F, MEMPHIS
GOODMAN, RALPH, MEMPHIS
- GORDON, TIMOTHY EDWARD, MEMPHIS
GORLINE, WILLIAM JAMES, MEMPHIS
- GOSSAGE, DAVID L, MEMPHIS
GOTTEN JR, NICHOLAS, MEMPHIS
* GOTTEN, HENRY BRAGG, MEMPHIS
* GOTTEN, NICHOLAS, MEMPHIS
GOURLEY, ROBT DUNSEITH, MEMPHIS
GRAGG JR, WILFORD H, MEMPHIS
GRANT, WM CRAIG, MEMPHIS
GRATZ JR, JOHN FISHER, MEMPHIS
GRAVES JR, LESTER R, MEMPHIS
GREEN JR, JAMES BUTLER, MEMPHIS
- GREENE JR, ROBERT W, MEMPHIS
GRIFFIN, DANIEL EUGENE, MEMPHIS
GRIFFIN, JOHN PATRICK, MEMPHIS
GRISE, JERRY WADE, MEMPHIS
GROBMYER III, ALBERT JOS, MEMPHIS
* GROBMYER JR, ALBERT JOS, MEMPHIS
GROGAN JR, FRED T, MEMPHIS
GROSS, CHAS WAYNE, MEMPHIS
GROSSMAN, RONALD K, MEMPHIS
GUYTON, JUS L, MEMPHIS
GWIN, JOHN FRANKLIN, MEMPHIS
HAGGITT, RODGER C, MEMPHIS
HAIMSOHN, JAMES S, MEMPHIS
HAJGHASSEMAL, MEHROOKHT, MEMPHIS
HALFORD JR, HOLLIS H, MEMPHIS
HALFORD, JACK RICHARD, MEMPHIS
- HALL, JOHNNIE CAMERON, MEMPHIS
HALL, SYLVIA A, MARTIN
* HALL, VONNIE ARTESIA, MEMPHIS
HALLE, MARGARET J A, MEMPHIS
- HAMILL, RANDY LEE, MEMPHIS
HAMILTON, EMILY THOMAS, MEMPHIS
- HAMILTON, JOHN EARLE, MEMPHIS
HAMILTON, RALPH E, MEMPHIS
HAMILTON, RALPH S, MEMPHIS
HAMILTON, WM THOS, MEMPHIS
HAMLETT III, JAMES M, MEMPHIS
HAMSHER, JOHN B, MEMPHIS
HANISSIAN, ARAM S, MEMPHIS
- HARDIN, DAVID R, MEMPHIS
* HARELL, MOSHE, MEMPHIS
HARLAN, CHARLES W, MEMPHIS
HARRELL, ETHEL ASHTON, MEMPHIS
HARRINGTON, OSCAR B, MEMPHIS
- HARRIS JR, JOHN J, MEMPHIS
HARRIS, BUFORD TERRELL, MEMPHIS
HARRIS, JOHN JOEL, MEMPHIS
- HARRIS, PAULA PILGRIM, MEMPHIS
* HARWELL JR, CARL M, MEMPHIS
HASEN JR, HOWARD B, MEMPHIS
HASEN, HOWARD B, MEMPHIS
HATCH JR, FRED E, MEMPHIS
HAWKES, ALFRED KENNETH, MEMPHIS

HAWKES, C DOUGLAS, MEMPHIS
HAWKES, JEAN MURRAY, MEMPHIS
HAY, CYRIL LEON, MEMPHIS
- HAYDEN, TIMOTHY W, MEMPHIS
- HAYES, WAYLAND JACKSON, MEMPHIS
HAYES, WM TIMOTHY, MEMPHIS
HAYKAL, RADWAN F, MEMPHIS
HEAD, THOMAS GLENN, MEMPHIS
HECKEMEYER, CHRISTINE M, MEMPHIS
HENARD, DONALD CLAUDE, MEMPHIS
HENDRICK III, RICHARD G, MEMPHIS
HENDRIX JR, JAMES H, MEMPHIS
HENLEY III, RUSSELL G, MEMPHIS
HENRY, LOUIE C, MEMPHIS
HERNDON JR, BRUCE WAYNE, MEMPHIS
HERRINGTON, CLARENCE G, MEMPHIS
HERTZ JR, CHARLES S, JACKSON
HIATT, ROGER LEW, MEMPHIS
HICKEY JR, HOMER DAVID, MEMPHIS
HIGDON, DENNIS ALAN, MEMPHIS
HIGGINBOTHAM, THOS WAYNE, MEMPHIS
HIGLEY JR, GEO BRAINARD, MEMPHIS
* HIGLEY, GEO BRAINARD, MEMPHIS
HILL, FONTAINE S, MEMPHIS
* HILL, JAMES MARK, MEMPHIS
HILL, JOHN ROY, MEMPHIS
HILSENBECK JR, JOHN ROBERT, MEMPHIS
HINES, ELBERT EDWIN, MEMPHIS
HINES, LEONARD HARVEY, MEMPHIS
- HIPPEN JR, ROBERT L, MEMPHIS
HIXSON, SHERMAN D, MEMPHIS
HODGES, JOHN MC IVER, MEMPHIS
- HODGES, TERI L, MEMPHIS
HOFFMAN JR, WALTER K, MEMPHIS
HOLLABAUGH, ROBT STERLING, MEMPHIS
HOLLAND, NANCY ELIZABETH, MEMPHIS
HOLLIDAY, THOS LINTON, MEMPHIS
HOLLOWAY JR, DAVID HOYT, MEMPHIS
- HOLLY, HOWARD RHEA, MEMPHIS
* HOLMES, JAMES ELMORE, MEMPHIS
HOLMES, JOHN PIERCE, MEMPHIS
HOLMES, PERRY DON, MEMPHIS
HOLT, HUEY THOS, MEMPHIS
HOOD, STEPHEN THUS, MEMPHIS
HOPKINS, JACK T, MEMPHIS
HOPPER, KAREN ELIZABETH, MEMPHIS
HORNE, ARTHUR E, MEMPHIS
HORTON, GLENN EDWARD, MEMPHIS
* HOTCHKISS, HUBERT LEECH, MEMPHIS
HOUSHOLDER, CHAS H, MEMPHIS
HOUSTON, JOHN L, MEMPHIS
* HOWARD, WM T, MEMPHIS
HOWSE, ROBERT JULIAN, MEMPHIS
HOWSER, JOHN PATTON, MEMPHIS
HUANG, SHANG PO, MEMPHIS
HUBBARD, RONALD EUGENE, MEMPHIS
HUBBERT, CHAS HUGHES, COLLIERVILLE
HUDSON, JOS STALM, MEMPHIS
HUDSON, SUE BETH, MEMPHIS
HUFF, CARL WAYNE, MEMPHIS
HUFFMAN, JOHN DAVID, MEMPHIS
* HUGHES JR, FELIX A, MEMPHIS
HUGHES, ALLEN HOLT, MEMPHIS
* HUGHES, JAMES GILLIAM, MEMPHIS
* HUGHES, JOHN DAVIS, MEMPHIS
* HUGHES, MAX, MEMPHIS
HUGHES, RUBT RULE, MEMPHIS
HUGHEY, JOHN R, MEMPHIS
HUMMEL, JOHN VERNON, MEMPHIS
HUMPHREYS, ROBERT A, MEMPHIS
HUNT, JAMES CALVIN, MEMPHIS
HUNTER, SAML E, MEMPHIS
HUTCHINS, CHAS EDWARD, MEMPHIS
HUTCHINS, LINDA FAYE L, MEMPHIS
- IACOBELLI, JOAN WEBER, MEMPHIS
IGNACZAK, THOMAS F, MEMPHIS
IJAMS, JOE HARTLEY, MEMPHIS
ILABACA, PATRICIO A, MEMPHIS
* INGLE, CHAS WM, MEMPHIS
INGRAM, ALVIN JOHN, MEMPHIS
INMAN, PATRICIA SUE, MEMPHIS
IRWIN, ROBERT BRYSON, TUPELO, MS
JABBOUR, C EUGENE, MEMPHIS
JABBOUR, J T, MEMPHIS
- JACKSON, STEPHEN WILLIAM, MEMPHIS
JACKSON, THOS M, MEMPHIS
JACOBS, ARTHUR ELLIOTT, MEMPHIS
JALLEPALLI, PANDURANGA, MEMPHIS
JAMES, HAL PEARSON, MEMPHIS
JARREO, LOIS KATHERINE, MEMPHIS
JARRETT JR, CHAS LESLIE, MEMPHIS
JAUCHLER, GERARD W, MEMPHIS
JEAN-PIERRE, ANTOINE, MEMPHIS
JENKINS, GEORGE W, MEMPHIS
JENKINS, JON CALVIN, MEMPHIS
- JENKINS, MARTIN B, MEMPHIS
JENNINGS, DAVID KEITH, MEMPHIS
- JENNINGS, SUSAN E, MEMPHIS
JERKINS, GERALD RAY, MEMPHIS
JOE, PENN QUORK, MEMPHIS
JOHNSON, JAMES GIBB, MEMPHIS
- JOHNSON, KAREN LYNN, MEMPHIS
JOHNSON, LARRY HOLLIDAY, MEMPHIS
- JOHNSON, MICHAEL B, MEMPHIS
JONES JR, SIDNEY O, MEMPHIS
* JONES, ALBERT MITCHELL, MEMPHIS
- JONES, DOUGLAS EDGAR, MEMPHIS
JONES, JOE PAUL, MEMPHIS
JONES, R LUBY, MEMPHIS
JONES, ROBT RILEY, MEMPHIS
JONES, WESLEY EARL, MEMPHIS
* JULICH, ARTHUR WILSON, MEMPHIS
JUSTIS, E JEFF, MEMPHIS
KAHN, SHERMAN ELLIOT, MEMPHIS
KANG, ANDREW HO, MEMPHIS
KAPLAN, EDWARD STEVEN, MEMPHIS
KAPLAN, JERRY, MEMPHIS
KAPLAN, ROBT JOEL, MEMPHIS
KAPLAN, STANLEY BARUCH, MEMPHIS
KAPUR, HARI S, MEMPHIS
KARKERA, MOHANDAS S, MEMPHIS
KASSEES WAHID, LAILA, MEMPHIS
KASSELBERG, LYMAN A, MEMPHIS
KATZ, GILBERT MARVIN, MEMPHIS
KELLETT, GARY LEON, MEMPHIS
KELLEY, BOBBY JERALD, MEMPHIS
* KELLY, ERNEST GEO, MEMPHIS
KELLY, RICHARD T, MEMPHIS
KENDRICK JR, WILLIAM RILEY, MEMPHIS
- KENNEDY, MICHAEL B, MEMPHIS
KERLAN, ROBT ASHLEY, MEMPHIS
* KESSLER, HENRY G, MEMPHIS
KHANDEKAR, ALIM, MEMPHIS
KHANDEKAR, SOPHIA HAQUE, MEMPHIS
KIEFER, PATSY R, MEMPHIS
KILEDJIAN, VARTKES, MEMPHIS
KIMBALL, NOAH BRADEN, MEMPHIS
KING JR, WILLIAM SCOTT, MEMPHIS
KING, BILLY W, MILLINGTON
* KING, CHAS MACK, MEMPHIS
* KING, JOHN C, MEMPHIS
KINGDON, JOHN MICHAEL, MEMPHIS
- KIRK, MARIAM MARTIN, MEMPHIS
KIRKLAND, RONALD H, MEMPHIS
KIRKLEY, JOHN BEAUCHAMP, JONESBORO, AR
KIRKPATRICK, ROBT DEAN, MEMPHIS
KISABETH, ROBERT M, MEMPHIS
KISBER, RICHARD H, MEMPHIS
KITABCHI, ABBAS EQBAL, MEMPHIS
KLEIER JR, ERNEST BOBBY, MEMPHIS
KLINE, ROBT PAUL, MEMPHIS
* KLOTZ, WM F, MEMPHIS
KNOTT, DAVID HOWARD, MEMPHIS
KNOWLES, JENNIFER S, MEMPHIS
- KNOX III, GEORGE P, MEMPHIS
KNOX, ROBT L, MEMPHIS
KOLEYNI, ASGHAR, MEMPHIS
KONIGSBERG JR, CHARLES, MEMPHIS
KOONCE, MARSHALL LYNN, MEMPHIS
* KOSSMANN, CHAS E, MEMPHIS
* KRAUS, ALFRED PAUL, MEMPHIS
KRAUS, MELVIN M, MEMPHIS
KRAUS, ROBERT M, MEMPHIS
KRISLE JR, JOE RICHARD, MEMPHIS
KROETZ, FRANK WM, MEMPHIS
KRONENBERG, JOEL I, MEMPHIS
KULP, ROY, MEMPHIS
* KUYKENDALL JR, NATHANIEL, MEMPHIS
KUYKENDALL, CARY M, MEMPHIS
KYLE, JOS WARREN, MEMPHIS
- LABONTE, ROGER S, MEMPHIS
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LAND, MACK A, MEMPHIS
LANDSEE, CARL GEO, MILLINGTON
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LANGSTON, JAMES WILSON, MEMPHIS
LANKFORD, WM ALEXANDER, MEMPHIS
LARIMER, PERRY JAMES, MEMPHIS
LARKIN, CHARLES NEWTON, GERMANTOWN
LASTER JR, ROBT EUGENE, MEMPHIS
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LATHRAM JR, MARVIN W, MEMPHIS
LAUGHLIN JR, ALBERT E, MEMPHIS
LAUGHLIN SR, ALBERT E, MEMPHIS
LAVELLE JR, HERMAN G, MEMPHIS
LAWRENCE, JESSE ALVAH, MEMPHIS
LAWSON, ROBT EDWARD, MEMPHIS
LAWSON, RONALD O, MEMPHIS
LAZAR, EDWARD HARRY, MEMPHIS
LEBOVITZ, M A, MEMPHIS
LEE, LING HONG, MEMPHIS
* LEFKOVITS, AARON M, MEMPHIS
LEMMI, HELIO, MEMPHIS
- LEMONDS, MIKE EDWARD, MEMPHIS
LEUNG, RICHARD KIN FOOK, MEMPHIS
LEVENSON, DAVID E, GERMANTOWN
LEVINSON, MICHAEL JAY, MEMPHIS
LEVITCH, MELVYN ABRAHAM, MEMPHIS
LEVY, JOE S, MEMPHIS
LEWIS JR, LAWRENCE C, MEMPHIS
LEWIS, MYRON, MEMPHIS
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LIEBERMAN, PHILLIP LOUIS, MEMPHIS
LINDER, HILARY FRANCIS, MEMPHIS
LINDERMUTH, JOHN R, MEMPHIS
LING, FRANK W, MEMPHIS
LIPSCOMB, ALYS H, MEMPHIS
LIPSEY, GEO GARTLEY, MEMPHIS
LITCH JR, MELVIN, MEMPHIS
LITTLE JR, WM ROBT, MEMPHIS
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* LOCKWOOD JR, DUDLEY G, HERNANDO, MS
- LONDON, JERRY FRANK, MEMPHIS
* LONG, CHAS EDWARD, MEMPHIS
LONG, FRANCIS ALLEN, SHEFFIELD, AL
LONG, THOMAS E, MEMPHIS
LONG, WILLIAM E, MEMPHIS
LOUGHEED, JOS C, MEMPHIS
LOVE, VARNA MAE PEYTON, MEMPHIS
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LUTHER, ROBT WAYNE, MEMPHIS
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LYNCH, MICHAEL HARDY, MEMPHIS
MABRY JR, EDWARD HAYS, MEMPHIS
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MACHIN, JAMES ELLIOTT, MEMPHIS
MACKEY, WM FREDERICK, MEMPHIS
MADOUX, HOLT BENJ, MEMPHIS
MADUSKA, ALBERT LOWELL, MEMPHIS
MAGILL, HUBERT LYNN, MEMPHIS
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MAIJUB, AMADO GABRIEL, MEMPHIS
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MANN, JAMES ALAN, MEMPHIS
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MANUGIAN, ARSEN, MEMPHIS
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MARKER, HOWARD WM, MEMPHIS
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MARTIN, ROY WAYNE, MEMPHIS
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MCBURNEY, ROBERT POWERS, MEMPHIS
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MCCAUGHAN JR, JOHN JOE, MEMPHIS
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MEYER, DAVID, MEMPHIS
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MILLER, JOSEPH BAYARD, MEMPHIS
* MILLER, RICHARD ALVAH, MEMPHIS
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MILLER, RICHARD O, WEST MEMPHIS, AR
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MOFFATT III, WILLIAM LEE, MEMPHIS
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MOINUDDIN, SHAMIM, MEMPHIS
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MONGER JR, RALPH HORACE, MEMPHIS
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MOORE JR, FONTAINE B, MEMPHIS
* MOORE JR, MOORE, MEMPHIS
MOORE, DAVID F, MEMPHIS
MOORE, JAMES A, MEMPHIS
MOORE, MARION ROBERTSON, MEMPHIS
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MORRIS, JOHN THOS, MEMPHIS

MORRIS, WM RANDOLPH, MEMPHIS
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MOSHIER, WM HILL, MEMPHIS
MOSS, JOHN PALMER, MEMPHIS
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MOSS, WM BENJ, MEMPHIS
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MOUSTAFA, SALWA, MEMPHIS
MUIRHEAD, ERNEST ERIC, MEMPHIS
MURDOCK, WADE THOS, MEMPHIS
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MURPHY, CYNTHIA DABNEY, MEMPHIS
MURPHY, JAMES GARNETT, MEMPHIS
MURPHY, PATRICK J, MEMPHIS
MURPHY, WALTER HENRY, MEMPHIS
MURPHY, WM MONT, MEMPHIS
MURRAH JR, WM FITZHUGH, MEMPHIS
MURRAY, IAN FARRELL, MEMPHIS
MYERS, WM STANLEY, MEMPHIS
NADEL, ALAN MARC, MEMPHIS
NAG, SUBIR K, MEMPHIS
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NASH, JOHN PAUL, MEMPHIS
* NAUMANN, HANS S, MEMPHIS
NAWAF, KAYS, MEMPHIS
- NEASE, H HOWARD, MEMPHIS
NEELY JR, CHAS LEA, MEMPHIS
- NETHERLAND, DONALD EARL, MEMPHIS
NEWMAN, LARRY BERNARD, MEMPHIS
- NICHOLS, ROBERT EUGENE, MEMPHIS
NICHOLS, THOS WADDELL, MEMPHIS
- NICHOLS, TRENT L, MEMPHIS
NICHOPOULOS, GEORGE C, MEMPHIS
* NICKSON, JAMES JOS, MEMPHIS
NIELL, HARVEY BARRETT, MEMPHIS
NIKOLOVSKI, OLIVER T, MEMPHIS
NOBLES JR, EUGENE ROMAN, MEMPHIS
NOE, HORACE NORMAN, MEMPHIS
* NORMAN, ROBT SIDNEY, GERMANTOWN
NORTH, WM C, MEMPHIS
NORTHERN JR, WM L, MEMPHIS
NUSSBAUMER III, DAVID P, MEMPHIS
O'CONNELL, JOHN F, MEMPHIS
O'SULLIVAN, PATRICK JOS, MEMPHIS
* OELKER, DONALD WILSON, MEMPHIS
OGLE, EVELYN M BASSI, MEMPHIS
* OGLE, WM SANDERS, MEMPHIS
OGLESBY, CLAUDE DUNN, MEMPHIS
OKRAH, AMOS, MEMPHIS
* OLIM, CHAS BURTON, MEMPHIS
OLINGER, ROONEY GLENN, MEMPHIS
* ORMAN, JOS COOKE, MEMPHIS
ORPET JR, P E, MEMPHIS
OSBORN, FRANK JACKSON, MEMPHIS
OSBORNE, PAMELA THOMPSON, COROOVA
OSWALD, WM J, MEMPHIS
OUTLAW, JOHN EDWARD, COLLIERVILLE
OUTLAW, WILLIAM F, COLLIERVILLE
OWENS, JAMES HARVEY, MEMPHIS
- OWENS, SCOTT E, MEMPHIS
* PACKER, HENRY, MEMPHIS
PAGE, GENE RUFFNER, MEMPHIS
PAGE, ROY CALVIN, MEMPHIS
PAGIDIPATI, DEVAIAH, MEMPHIS
PAINTER, MAX WESLEY, MEMPHIS
PALMER IV, ROBERT E, MEMPHIS
PALMIERI, GENARO MIGUEL A, MEMPHIS
PARKER, JOS, MEMPHIS
PARRISH, RICHARD E, MEMPHIS
PARROTT JR, CHAS WM, MEMPHIS
PARSONS III, WARD CHESTER, MEMPHIS
PASLAWSKI, WALTER, MEMPHIS
* PASTER, SAML, SANTAMUNICH, CA
PASTERNACK, MORRIS, MEMPHIS
PATE, JAMES W, MEMPHIS
PATTERSON III, RUSSELL H, MEMPHIS
PATTERSON JR, RUSSELL H, MEMPHIS
PATTERSON, CHARLES RICHARD, MEMPHIS
PATTERSON, KELLY, MEMPHIS
- PATTERSON, LARRY, MEMPHIS
PATTERSON, RUSHTON EUGENE, MEMPHIS
PATTERSON, SAM POLK, MEMPHIS
PATTERSON, STANLEY MARTIN, MEMPHIS
PAUL, RAPHAEL NATHAN, MEMPHIS
PAYNE JR, EARNEST B, MEMPHIS
PEARSON, RICHARD MCQUISTON, MEMPHIS
PEDIGO, PHILLIP ADLER, MEMPHIS
- PEELER, MOLLY MCPEAKE, COVINGTON
PEEPLES JR, JOHN O, MEMPHIS
PELZ, FREDERICK, MEMPHIS
PENDER JR, JOHN VINCENT, MEMPHIS
- PENDERGRASS, LANDON BOYD, MEMPHIS
PERRY, EDGAR EMRICH, MEMPHIS
PETERS, THOMAS GUY, MEMPHIS
PETTIT JR, PAUL NESMITH, WEST MEMPHIS, AR
PHELPS, WM CHAS, MEMPHIS
PHILLIPS, JERRY CLYDE, MEMPHIS
* PHILLIPS, WM EARL, MEMPHIS
PHOTOPULOS, GUY J, MEMPHIS
PIAN JR, MAURICE C, MEMPHIS
PIGOTT, JOHN D, MEMPHIS
PINALS, ROBERT S, MEMPHIS
PINSON, E LOUISE, MEMPHIS
PINSTEIN, MARTIN LEE, MEMPHIS
PITCOCK, JAMES ALLISON, MEMPHIS
- PITTS, PAUL W, MEMPHIS
PLATKIN, ALAN BAILEY, MEMPHIS
PLITMAN, GERALD IRA, MEMPHIS
POLLNOW, ROBERT E, MEMPHIS
* POOL, ROBT MC CAUGHRIN, MEMPHIS
* PORTER, COLUMBUS HASSELL, MEMPHIS
PORTER, HUEY HENDERSON, MEMPHIS
PORTER, WM RICHARD, MEMPHIS
POSEY, MICHAEL EVANS, MEMPHIS
POWELL, CARROLL E, COLLIERVILLE
PRICE, CAROLYN CULPEPPER, MEMPHIS
PRICE, JAMES HOWARD, MEMPHIS
PRIDGEN, STEPHEN ALLEN, MEMPHIS
PRIDGEN, WM ROBY, MEMPHIS
PRIETO JR, LUIS CARLOS, MEMPHIS
- PRITCHARD, FRANCES E, GERMANTOWN
PROCTOR, RUSSELL JAY, MEMPHIS
- PRUETT, MICHAEL RIDDELL, MEMPHIS
- PUCKETT, TERRY L, MEMPHIS
PUTMAN, BILLIE HAROLD, MEMPHIS
QUINN III, PETER JOS, MEMPHIS
- QUINN, BAYARD PAUL, MEMPHIS
RADA III, JOHN B, MEMPHIS
RAGHAVAIAH, N V, MEMPHIS
RAHMAN, MAHFUZUR, MEMPHIS
RAINER, J KENYON, MEMPHIS
RAINES, RICHARD BRODNAX, MEMPHIS
* RAINES, SAML LUCAS, MEMPHIS
* RAINEY, WM THOS, MEMPHIS
RAINS III, BOYCE MANRIN, MEMPHIS
RAMANATHAN, JAYA, MEMPHIS
RAMANATHAN, KODANGUDI B, MEMPHIS
RAMEY III, DANL RANDOLPH, MEMPHIS
RANDOLPH, JERRY F, MEMPHIS
RANDOLPH, PAUL DOUGLAS, MEMPHIS
RAO, BHASKAR NARAYAN, GERMANTOWN
RAO, PAIDIPALLI B, MEMPHIS
RAWTANI, PALLAVI V, MEMPHIS
RAY, MORRIS WILLIAM, MEMPHIS
REAVES, EDWARD MC CORMICK, MEMPHIS
* REDMON, JOHN JONES, MEMPHIS
REED, CHESTON MURRAY, MEMPHIS
REED, EDWARD WILSON, MEMPHIS
REED, MARK LOYD, MEMPHIS
REEDER, ROBT CANADA, MEMPHIS
REESE JR, HARVEY C, MEMPHIS
REESE, HALDEN EUGENE, MEMPHIS
REISSER JR, JOHN MILTON, MEMPHIS
- REISSER, JOHN RANDOLPH, MEMPHIS
RENTROP, WALTER ANTON, MEMPHIS
RENTROP, WM EMIL, MEMPHIS
REYNOLDS, GARY LYNN, MEMPHIS
RHEA JR, HAL S, MEMPHIS
* RHEA SR, HAL SALE, MEMPHIS
RHODES JR, CHAS THOS, MEMPHIS
RICHARDSON JR, ROBT LEE, MEMPHIS
RICHARDSON, ELBERT GREER, MEMPHIS
RIGGS JR, WM WEBSTER, MEMPHIS
RIGGS, CHAS R, MEMPHIS
RILEY, FRANCES OSBORN, MEMPHIS
ROANE, JOURDAN ARCHIBALD, MEMPHIS
ROBBINS JR, SAMUEL GWIN, MEMPHIS
ROBBINS, SAML G, MEMPHIS
* ROBERTS, FRANK L, MEMPHIS
ROBERTSON, JAMES THOS, MEMPHIS
ROBERTSON, JON HOBSON, MEMPHIS
* ROBINSON JR, CHAS G, MEMPHIS
ROBINSON JR, JOHN EDWARD, MEMPHIS
ROBINSON, JAMES A, MEMPHIS
ROBISON JR, LOWELL BENJ, MEMPHIS
ROCKETT, JOHN FREDERICK, MEMPHIS
* ROGERS, GORDON K, MEMPHIS
ROJAS, NORBERTO, MEMPHIS
RONEY, RONALD STEVEN, MEMPHIS
ROSEN, GERALD MICHAEL, MEMPHIS
ROSENBERG, ZACHARY, MEMPHIS
ROSENSWEIG, JACOB, MEMPHIS
ROTHSCHILD, JOSEPH A, MEMPHIS
ROUTT JR, WILLIAM EDWARD, MEMPHIS
RUCH JR, WALTER ALLWEIN, MEMPHIS
RUCH, ROBT MILTON, MEMPHIS
RUDNER JR, HENRY GORDON, MEMPHIS
RULEMAN, CHESTER ALLAN, MEMPHIS
RUNYAN JR, JOHN WM, MEMPHIS
RUSSELL JR, JOHN MURRAY, MEMPHIS
RUSSELL, THOMAS ANTHONY, MEMPHIS
RUSSO, WM LOUIS, MEMPHIS
RUTSCHMAN, JULIAN LEANDER, MEMPHIS
RYAN JR, GEO MARION, MEMPHIS
SACKS, HAROLD SAMUEL, MEMPHIS
SAFLEY JR, CHAS FRANKLIN, MEMPHIS
SAGE, FRED P, MEMPHIS
SAINO, JAMES O, MEMPHIS
SALAZER, JORGE E, MEMPHIS
SALKY, NATHAN KALMON, MEMPHIS
SAMMONS JR, LEHMAN CLARK, MEMPHIS
SAMUELS, ALAN DANL, MEMPHIS
SANDER, CRAIG J, MEMPHIS
* SANDERS, SAM HOUSTON, MEMPHIS
SANFORD JR, JACK CARTER, MEMPHIS
SANFORD, DAVID MARSHALL, MEMPHIS
SATTERFIELD JR, WM T, MEMPHIS
SAUTER, ROBERT F, GERMANTOWN
SCHAFFER, DONALD EARL, MEMPHIS
SCHAFFER, HARRY IVAN, MEMPHIS
* SCHEINBERG, DAVID ERSHL, MEMPHIS
SCHETTLER, BETTY J, MEMPHIS
SCHETTLER, WM HEYMOORE, MEMPHIS
SCHLESINGER, VICTOR ADLER, MEMPHIS
SCHOETTLE JR, G PHILLIP, MEMPHIS
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SCHROEDER, HARRIET L, MEMPHIS
* SCHROFF, JEROME, MEMPHIS
SCHWARTZ, STANLEY SIMON, MEMPHIS
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SCOTT III, BENJ F, MEMPHIS
- SCOTT III, DANIEL JOYNER, MEMPHIS
SCOTT JR, DANIEL J, MEMPHIS
SCOTT, EDWIN LEE, MEMPHIS
SCOTT, JOS MANSON, MEMPHIS
SCOTT, RANDALL LEE, MEMPHIS
SEALE, JAMES L, MEMPHIS
- SEALS, JAMES LEE, MEMPHIS
SEBES, JENO IMRE, MEMPHIS
SEGAL, ANTHONY, MEMPHIS
SEGAL, JACK, MEMPHIS
SEGAL, MAURICE P, MEMPHIS
* SEGERSON, EDWARD C, MEMPHIS
* SELIGSTEIN, MILTON B, MEMPHIS
SEXTON, RAY OWEN, MEMPHIS
SHAPIRO, NORMAN D, MEMPHIS
SHAPPLEY JR, WM VANCE, MEMPHIS
SHARPMAN, DAVID MORRIS, MEMPHIS
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SHEA JR, JOHN JOS, MEMPHIS
SHEA JR, MARTIN COYLE, MEMPHIS
SHEARIN, ROBT P N, MEMPHIS
SHEFFIELD, WM E, MEMPHIS
SHELL III, DAN H, MEMPHIS
SHELTON, BRIXEY R, MEMPHIS
* SHELTON, JAMES R, HEBER SPRINGS, AR
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SHERROD II, ROME, MEMPHIS
- SHERWOOD, ALLEN T, MEMPHIS
SHIFFMAN, STEPHEN MURRAY, MEMPHIS
SHUMAKE, LESLIE BOWLIN, MEMPHIS
SIEGEL, JEROME SEYMOUR, MEMPHIS
SIEGEL, SAUL, MEMPHIS
SIKES, JAMES C, MEMPHIS
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SIMMONS, JAMES C H, MEMPHIS
SIMPKINS, SIDNEY M, MEMPHIS
SIMPSON, JAMES W, HICKORY WITHE
SIMS, CLIFFORD W, MEMPHIS
SISK, THOS DAVID, MEMPHIS
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SKAGGS, MARVIN RICHARD, MEMPHIS
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- SLOAN, MICHAEL LINWOOD, MEMPHIS
SLUTSKY, AVRON ABE, MEMPHIS
- SMILEY, LINDA MARIE, MEMPHIS
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- SMITH JR, LESLIE E, MEMPHIS
SMITH JR, VERNON I, MEMPHIS
SMITH, CLYDE GAYLON, MEMPHIS
SMITH, GALEN R, KINGSPORT
SMITH, KIRBY LEE, MEMPHIS
- SMITH, RICKY ALLEN, MEMPHIS
SMITH, STANLEY L, MEMPHIS
- SMITH, SULLIVAN KAY, MEMPHIS
SMITH, VINCENT O, MEMPHIS
SMITH, W CHAPMAN, MEMPHIS
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SNIDER, CHARLES VAN, MEMPHIS
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SNYDER, DOWEN ERVIN, MEMPHIS
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SOLLEE JR, ARTHUR NEYLE, MEMPHIS
SOLOMITO, VINCENT LEE, MEMPHIS
SOLOWAY, MARK STEPHEN, MEMPHIS
- SONI, POONAM, MEMPHIS
SOPER, RICHARD GRAVES, MEMPHIS
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SPIOTTA, EUGENE JOS, MEMPHIS
SPIOTTA, LARRY B, MEMPHIS
* SPRUNT, DOUGLAS H, MEMPHIS
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STANFORD, CARL COOPER, MEMPHIS
STANFORD, JAMES FRANKLIN, MEMPHIS
STANLEY JR, THOS V, MEMPHIS
STARK, RAY GINGLES, MEMPHIS
STARR, JASON LEONARD, MEMPHIS
- STEINER, MITCHELL S, MEMPHIS
STEPHENS, RAJ K, GERMANTOWN
STEPP, WM PRICE, MEMPHIS
STERN, THOS NEUTON, MEMPHIS
STEVENSON, CLED WILSON, MEMPHIS
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STEVENSON, ROBIN MALCOLM, MEMPHIS
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STEWART, SHERRILL BRYCE, MEMPHIS
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STRASBERG, GARY DAVID, MEMPHIS
STRATTON, HENRY THOS, MEMPHIS
STRICKLAND, MARK C, MEMPHIS
STROCK, SYLVIA S, MEMPHIS
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SULLIVAN, JAY MICHAEL, MEMPHIS
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TACKET, HALL SANFORD, MEMPHIS

TAG, ARNOLD R, MEMPHIS
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DOWNEY, WM LEE, NASHVILLE
+ DOWNS, HOWARD S, MADISON
DOYLE, DEBORAH R, NASHVILLE
DOYNE, MARK ALAN, NASHVILLE
DOZIER JR, J EMMETT, NASHVILLE
DRIVER JR, L ROWE, NASHVILLE
DUBUISSON, RAY L, NASHVILLE
DUDLEY, B STEPHEN, HOUSTON, TX
DUFFY, KAREN BARR, MADISON
DUNCAN, GARY WM, NASHVILLE
DUNCAN, GEO E, NASHVILLE
DUNCAN, THOMAS C, NASHVILLE
DUNDON, MARY CATHERINE, HENDERSONVILLE
DUNKERLEY JR, ROBT C, NASHVILLE
DUNN, GEO OEWEY, NASHVILLE
DUTTON, WM PATTERSON, NASHVILLE
DYER, ERIC L, NASHVILLE
ECKSTEIN, CHARLES W, NASHVILLE
EDGAR SR, ANDREW S, NASHVILLE
EDWARDS, ODRAN DEVON, NASHVILLE
EDWARDS, JOE MICHAEL, NASHVILLE
EDWARDS, ROBT HARVEY, NASHVILLE
EDWARDS, WM H, NASHVILLE
- EHRENFRIED, BETH A, NASHVILLE
ELAM III, ROY OSCAR, NASHVILLE
ELAM, LLOYD CHAS, NASHVILLE
ELLIOTT, JAMES H, NASHVILLE
* ELLIOTT, PHILIP C, NASHVILLE
ELLIS, JAMES W, NASHVILLE
ELLIS, MICHAEL C, MADISON
ELSON, MELVIN LESLIE, NASHVILLE
EMERSON, CLIFTON W, NASHVILLE
ENTMAN, STEPHEN S, NASHVILLE
ERYASA, YILMAZ, NASHVILLE
ESCOBAR, ALFONSO, NASHVILLE
ESKIND, IRWIN BERNARD, NASHVILLE
ESTES, ROBERT L, NASHVILLE
ESTES, TAFT HORACE, NASHVILLE
EVANS JR, OWEN P, NASHVILLE
EVANS, HILLIS FLOREN, MADISON
EWERS, E WILLIAM, NASHVILLE
EYLER, DON LEROY, SALEM, AL
EZELL, ROY CLAY, NASHVILLE
FABER, ROBT BRANCH, NASHVILLE
FAKHRODDIN, A K M, GOODLETTSVILLE
FALK, LESLIE ALLINA, NASHVILLE
FARRAR, THOMAS CROWELL, NASHVILLE
FARRAR, WM TAYLOR, NASHVILLE
FARRINGER JR, JOHN LEE, NASHVILLE
* FARRIS, WILLIAM B, BRADENTON, FL
FAULK JR, WALLACE H, NASHVILLE
FAULKNER, CHAS TAYLOR, NASHVILLE
FELCH, JAMES W, FRANKLIN
FELDMAN, RICHARD WARREN, NASHVILLE
FELTS, PHILIP W, NASHVILLE
FELTS, STEPHEN KAREY, HERMITAGE
FEMAN, STEPHEN S, NASHVILLE
FENICHEL, GERALD MERVIN, NASHVILLE
FERGUSON, HAROLD AUSTIN, NASHVILLE
FERTMAN, STEPHANIE LYNNE, NASHVILLE
* FESSEY, RAY D, NASHVILLE
* FIDELHOLTZ, JACOB NORMAN, NASHVILLE
FIELDS, JAMES R, NASHVILLE
FIELDS, JOHN PERSHING, NASHVILLE
FINK, GARY ELIOT, NASHVILLE
FINKE, FREDERICK LEROY, NASHVILLE
* FINKS, ROBT MARK, NASHVILLE
FISHBEIN, JOS H, NASHVILLE
FISHER, BENJ, NASHVILLE
* FISHER, LAURA M, NEWTON CENTRE, MA
* FITZWATER JR, JAMES E, SAN FRANCISCO, CA
FLEET JR, WILLIAM F, GOODLETTSVILLE
FLEISCHER, ARTHUR C, NASHVILLE
FLEMING JR, JAMES H, NASHVILLE
FLEMING JR, ROSS, NASHVILLE
FLEXNER, JOHN MORRIS, NASHVILLE
FOREMAN, HOWARD R, NASHVILLE
FORSYTH, G PAUL, NASHVILLE
FOSTER, HENRY WENDELL, NASHVILLE
* FOSTER, JOHN H, NASHVILLE
FOSTER, NELSON RAY, FRANKLIN
FOWINKLE, EUGENE WESLEY, NASHVILLE
FOWLER, SAML B, NASHVILLE
* FRANCE, RICHARD, NASHVILLE
- FRANCIS III, HUGH, NASHVILLE
FRANCIS, ROBT STANLEY, NASHVILLE
FRANKLIN, JERRY M, NASHVILLE
FRECERIKSEN, RAND TERRELL, NASHVILLE
FREEMAN, RUFUS JACK, NASHVILLE
FRENCHMAN, KHUSHRU H, HENDERSONVILLE
FREY, WALTER WILLIS, NASHVILLE
FRIDDELL, THOS JAMES, NASHVILLE
FRIESINGER, GOTTLIEB C, NASHVILLE
FRIST JR, JOHN C, NASHVILLE
FRIST, ROBT ARMISTEAD, NASHVILLE
* FRIST, THOS F, NASHVILLE
- FROELICH, E EDWIN, NASHVILLE
FULKERSON JR, WILLIAM J, NASHVILLE
FURMAN, JOHN ROBERT, MADISON
GAINES, DONALD LEE, NASHVILLE
* GANT, JULIAN C, LOMA LINDA, CA
* GARDNER, CHAS KURTIN, NASHVILLE
* GARDNER, JAMES COLLIE, NASHVILLE
GARMAN, RICHARD W, NASHVILLE
GARRETT, SAM YOUNG, NASHVILLE
GASKINS, FAY M, NASHVILLE
GASTON JR, ROBERT B, NASHVILLE
GASTON, ROBT B, DONELSON
GAVIGAN, WM MITCHEL, NASHVILLE
GAW, DAVID WISDOM, NASHVILLE
GAW, WILLIAM RICHARD, NASHVILLE
GEDDIE, DANL CLARK, NASHVILLE
GENCA, EROL, NASHVILLE
GENTRY, HAROLD LEFFEL, MADISON
GESSLER, CARL NEWTON, NASHVILLE
GHOSH, KRISHNA DEVI, NASHVILLE
GIBSON, JOHN RAGAN, NASHVILLE
GIBSON, RICHARD L, NASHVILLE
GILL, CHAS MC CLELLAND, NASHVILLE

GILMER, RONALD K, NASHVILLE
GLASCOCK, FRANK B, NASHVILLE
GLASSCOCK, MICHAEL E, NASHVILLE
GLASSFORD JR, DAVID M, NASHVILLE
GLICK, ALAN DOUGLAS, NASHVILLE
* GLOVER JR, JOHN P, NASHVILLE
GLUCK JR, FRANCIS W, NASHVILLE
GOBBEL JR, WALTER G, NASHVILLE
GOLDNER JR, FRED, NASHVILLE
- GOLDNER, ARTHUR L, NASHVILLE
GOMEZ, PAUL CHAS, NASHVILLE
GORE, JOHNNY ELMO, ANTIOCH
GORSTEIN, FRED, NASHVILLE
GOWDA, HIRANYA C K, NASHVILLE
GRABER, ALAN LEE, NASHVILLE
GRAHAM JR, LOUIS S, NASHVILLE
GRAHAM, THOMAS P, NASHVILLE
- GRAMBOW, DAVID W, CUDAHY, WI
GRANDA, ANTONIO MEDARDO, NASHVILLE
GRANT, BURTON PAINE, NASHVILLE
GRAVES JR, HERSCHEL A, NASHVILLE
GRAY, GEORGE F, NASHVILLE
- GRAY, JAMES R, NASHVILLE
- GRAY, RICHARD M, NASHVILLE
GRAY, ROLAND WILLIAM, NASHVILLE
GRECO, FRANK ANTHONY, NASHVILLE
GREEN JR, PAUL A, NASHVILLE
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GREEN, JAMES DONALD, NASHVILLE
- GREEN, KELLI C, GOODLETTSVILLE
* GREEN, LOUIS D, NASHVILLE
GREEN, NEIL EDWARD, NASHVILLE
GREENBAUM, RALPH MARTIN, NASHVILLE
GREENE, HARRY LEE, NASHVILLE
GREENE, JOHN W, NASHVILLE
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GREGG, CLARK R, NASHVILLE
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GREGORY, DAVID WILSON, NASHVILLE
GREMILLION JR, DANIEL E, NASHVILLE
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GRIFFITH JR, JOHN W, NASHVILLE
GRINOE, STEPHEN E, NASHVILLE
GRINER, WINSTON H, NASHVILLE
GRISCOM, JOHN HOOPER, NASHVILLE
GROOS, ERICH BRYAN, NASHVILLE
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GROSSMAN, MILTON, NASHVILLE
GROVE, R BARRY, NASHVILLE
GROWDON JR, JAMES HAROLD, NASHVILLE
- GRUBER, THOMAS J, NASHVILLE
- GUILOFORD, JAMES H, BIRMINGHAM, AL
GULYA, AINA JULIANNA, NASHVILLE
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GUPTON JR, WM EDWIN, NASHVILLE
GURLEY, LARRY O, NASHVILLE
GUTOW, GARY SAML, NASHVILLE
GUTOW, RICHARD FINEMAN, NASHVILLE
HAGAN, GEO BRYANT, MADISON
HAGAN, KEITH W, NASHVILLE
HAGAN, KEVIN F, NASHVILLE
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HAINSWORTH, JOHN D, NASHVILLE
HALEY JR, ROBT LEO, MADISON
HALL JR, WALLACE HOWARD, NASHVILLE
HALL, HUGH DAVID, NASHVILLE
HALPRIN, GERALD MYRON, NASHVILLE
HALTOM, THOS BRANSON, NASHVILLE
HAMBERG, MARCELLE ROBT, NASHVILLE
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HAMILTON, JAMES RICHARD, NASHVILLE
* HAMILTON, WM M, NASHVILLE
HAMMON JR, JOHN W, NASHVILLE
HAMMONDS, ROY GLENN, NASHVILLE
HANOTE, ROBERT E, SAUDI ARABIA
HANES, THOMAS EUGENE, MADISON
HANSEN, AXEL CARL, NASHVILLE
HARDIN, ROBT ALLEN, NASHVILLE
HARRIS, JACKSON, NASHVILLE
HARRIS, JEFFREY S, NASHVILLE
HARRIS, PERRY FELTON, NASHVILLE
HARTMANN, WM HERMAN, NASHVILLE
HARVEY, ALEXANDER EARLE, NASHVILLE
HARWELL JR, WM BEASLEY, NASHVILLE
HARWELL, AUBREY B, NASHVILLE
HASTIE, JAMES SUTTON, GOODLETTSVILLE
HASTY, NORMAN DONALD, NASHVILLE
HAWKINS, ROWLAND SPECK, NASHVILLE
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HAYNES JR, J BREVARD, NASHVILLE
HAYNES, JAMES HUGH, NASHVILLE
* HAYNIE, H CAMPBELL, FRANKLIN
HAYS, JAMES WM, NASHVILLE
HEFLIN, A CLYDE, NASHVILLE
HEIM, CRAIG REED, NASHVILLE
HELLER, RICHARD MOSS, NASHVILLE
HELME, JAMES B, NASHVILLE
HENDERSON, ROBERT R, NASHVILLE
HENRY, DOUGLAS C, NASHVILLE
HENSON, ALAN STUART, MADISON
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* HERZFELD, JOHN G, NASHVILLE
HESTER, RAY WILLIS, NASHVILLE
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* HIBBITTS JR, JOSIAH B, NASHVILLE
HIGH, JAMES MARSHALL, MADISON
HIGHTOWER, DANL RUSSELL, NASHVILLE
- HILL, STEVEN E, NASHVILLE
HILL, WARREN THOS, HENDERSONVILLE
HILL, WM HAROLD, MADISON
HILLARD, IRVING RINGO, NASHVILLE
HILLS, EDWARD RUDOLPH, NASHVILLE
HINES, STEPHEN L, NASHVILLE
HIRSHBERG, CHAS SNYDER, NASHVILLE
HITCHMAN, JAMES KENNETH, NASHVILLE
HOBBY, CHARLIE JOE, NASHVILLE
HOLCOMB III, GEORGE W, NASHVILLE
HOLCOMB JR, GEO W, NASHVILLE
* HOLLABAUGH, CHAS FOWLER, NASHVILLE
HOLLENDER, MARC HALE, NASHVILLE
- HOLLEY, C WAYNE, NASHVILLE
HOLLIDAY, HUGH DOUGLAS, NASHVILLE
HOLLIFIELD, JOHN WARD, NASHVILLE
- HOLLOWAY, ROBERT W, VESTAVIA HILL, AL
HOLMES III, GEO LANOIS, NASHVILLE
HOLZEN, THOMAS W, NASHVILLE
* HONG, INPOW, APO SAN FRANCIS, CA
HOOS, RICHARD T, NASHVILLE
HORN, ROBT GORDON, NASHVILLE
HOROWITZ, DAVID HARVEY, NASHVILLE
HORTON JR, FREDERICK T, NASHVILLE
HOUSTON, MARK CLARENCE, NASHVILLE
HOWELL JR, EVERETTE IRL, NASHVILLE
HOWERTON, HENRY CLAYTON, NASHVILLE
HSUEH, YERNG TERNG, NASHVILLE
HUBER, THOS J, MADISON
HUDDLESTON, CHAS H, NASHVILLE
HUGGINS, JAMES M, MADISON
HUFFMAN, WILLIAM R, BRENTWOOD
HUMPHREY, STEPHEN P, MADISON
HUMPHREYS, JERRY KAY, NASHVILLE
- HUMPHREYS, LINDA, NASHVILLE
HUNT, JERRY CHEEK, MADISON
HURT, JOS EDWARD, NASHVILLE
HUSTON, JOSEPH W, NASHVILLE
HUTTON JR, VERNON, NASHVILLE
HUTTON, ROBERT M, NASHVILLE
HYMAN, STEVE A, NASHVILLE
IKARD, ROBT WINSTON, NASHVILLE
INTERLANDI, JOHN W, HERMITAGE
ISAACS, JUANITA JOYCE, NASHVILLE
ISENHOUR JR, ALBERT P, NASHVILLE
ISMAIL, MOHAMMED, NASHVILLE
* IVIE, JOS MC KINNEY, NASHVILLE
JACKSON, C GARY, NASHVILLE
JACKSON, ROGER THEODORE, NASHVILLE
JACOBS, JOS KENNETH, NASHVILLE
JAMES, A EVERETTE, NASHVILLE
- JAQUISS, ROBERT DOUGLAS, MACKINAC ISL, MI
JARVIS, DAVID ALAN, NASHVILLE
JEKOT, WILLIAM J, MURFREESBORO
JENNINGS, HENRY S, NASHVILLE
JERKINS, GARY W, NASHVILLE
JOHN JR, JAMES THOS, NASHVILLE
JOHNSON JR, IRA T, NASHVILLE
JOHNSON, DAVID HORTON, NASHVILLE
JOHNSON, ERNEST KAYE, NASHVILLE
JOHNSON, HARRY KEITH, NASHVILLE
* JOHNSON, HOLLIS EUGENE, NASHVILLE
JOHNSON, JAMES WM, NASHVILLE
JOHNSON, JOHN SETILE, NASHVILLE
- JOHNSON, JOYCE EVELYN, NASHVILLE
JOHNSON, PAUL ALFRED, NASHVILLE
JOHNSON, ROBT MARSHALL, NASHVILLE
JOHNSTON, CHAMBLESS RAND, NASHVILLE
- JOHNSTON, DAN TODD, NASHVILLE
JOHNSTON, ROBT K, NASHVILLE
JOHNSTON, WILLIAM D, NASHVILLE
JONES III, HOWARD W, NASHVILLE
JONES JR, ORRIN LESTER, NASHVILLE
JONES, BRUCE E, NASHVILLE
JONES, DAVID SCOTT, NASHVILLE
JONES, EDMUND PALMER, NASHVILLE
JONES, FRANK EMERSON, NASHVILLE
JONES, JOHN DONALD, NASHVILLE
* JONES, JOHN R, WILLIAMSBURG, KY
JONES, PHILLIP R, NASHVILLE
* JORDAN, THOS MALONE, NASHVILLE
KAISER, ALLEN B, NASHVILLE
KAMBAM, JAYAKUMAR REDDY, NASHVILLE
KAMINSKI, MICHAEL JAMES, NASHVILLE
* KAMPMEIER, RUDOLPH H, NASHVILLE
KAPLAN, HERMAN JACOB, NASHVILLE
KAPLAN, PETER ROBT, NASHVILLE
KARZON, DAVID THEODORE, NASHVILLE
KASSELBERG, ALFRED GUY, NASHVILLE
KAUDER, BRUCE M, NASHVILLE
KAYE, JEREMY JON, NASHVILLE
KEANE, WM SHERMAN, NASHVILLE
KEMMERLY, PAUL COURTLAND, NASHVILLE
* KENDALL, CYRUS ERVE, HENDERSONVILLE
* KENNEDY, J ALLEN, NASHVILLE
KENNER III, WM DAVIS, NASHVILLE
* KENNON JR, WM GILLIAM, NASHVILLE
KEYES, MICHAEL JOS, NASHVILLE
KHAN, CAMAR ALI, NASHVILLE
KILROY, ANTHONY MALOO, NASHVILLE
KIMBRELL JR, FRED TAYLOR, DONELSON
KING JR, LLOYD E, NASHVILLE
KINNARD, JOHN PARKES, NASHVILLE
KIRBY, LOWRY DALE, NASHVILLE
KIRCHBERG JR, ROY WM, NASHVILLE
KIRCHNER JR, FREDERICK K, NASHVILLE
KIRCHNER, SANDRA LYNNE G, NASHVILLE
KIRSHNER, HOWARD S, NASHVILLE
KLINE, KERRY L, ANTIOCH
KLING JR, RALPH R, NASHVILLE
KOCHTITZKY, OTTO M, NASHVILLE
KOENIG, LEONARD J, NASHVILLE
- KOONTZ, PAUL D, NASHVILLE
KOURANY, RONALD FREDERIC, NASHVILLE
KRAMER, LEE F, GOODLETTSVILLE
KRONENBERG, MARVIN W, NASHVILLE
KUZUR, MICHEL ELIAS, NASHVILLE
KYGER, KENT, NASHVILLE
LA VOI, SAML JOS, NASHVILLE
LAMB, JOHN WM, NASHVILLE
* LAMB, ROLAND O, NASHVILLE
LAMBERT, FRANK HAYDEN, NASHVILLE
- LANGE, JULIE R, ATLANTA, GA
LATOUR, DANA L, NASHVILLE
LATOUR, PAUL A, NASHVILLE
LAUGHLIN, LAWRENCE PAUL, NASHVILLE
LAVELY JR, HORACE T, NASHVILLE
LAWRENCE JR, GRANVILLE A, NASHVILLE
LAWSON, ALBERT ROBT, MURFREESBORO
LE QUIRE, VIRGIL S, NASHVILLE
LEE, DAVID GRANVILLE, NASHVILLE
LEFTWICH, RUSSELL B, NASHVILLE
- LENOX, RACHEL K, NASHVILLE
LENTZ, JOS FRANCIS, NASHVILLE
LEONARD, JOHN MARTIN, NASHVILLE
LESTER, JAMES PEYTON, NASHVILLE
LEVITT, MICHAEL J, NASHVILLE
LEWIS, MALCOLM R, NASHVILLE
LICOLE, GRANT WINDER, NASHVILLE
LIGHT, RICHARD T, NASHVILLE
LIMBIRD, THOMAS J, NASHVILLE
LINN, M JOANNE LOVELL, NASHVILLE
- LINN, MARGARET RUTH, NASHVILLE
LINN, ROBT J, NASHVILLE
LIPSCOMB, ALBERT BRANT, NASHVILLE
LISELLA, RICHARD SCOTT, NASHVILLE
LODEN, JAMES POPE, NASHVILLE
LOGAN, JIMMI H, NASHVILLE
LOGAN, THOS PERCIVAL, NASHVILLE
LONG, WM ROYSTON, NASHVILLE
LOVELACE, DONALD RAY, NASHVILLE
- LOVITT, MATTHEW ALAN, NASHVILLE
LOVVORN JR, HAROLD N, NASHVILLE
* LOWE, JACKSON PHILIP, NASHVILLE
LUBOW, LAWRENCE O, NASHVILLE
LUKENS, JEFFREY ARTHUR, NASHVILLE
* LYLE, PHILIP LEWIS, NASHVILLE
LYNCH, JOHN BROWN, NASHVILLE
MAC MILLAN JR, CHAS W, NASHVILLE
MACMILLAN, ROBT DUNCAN, NASHVILLE
MADDEN JR, JAMES JOS, NASHVILLE
MAGEE, MICHAEL J, NASHVILLE
MAGPANTAY, EDMUNDO O, MT JULIET
* MAGRUDER, ROBT HERMAN, OLD HICKORY
MAKRANDI, VIJAY RANI, NASHVILLE
MALCOLM, ARNOLD WM, NASHVILLE
MALLARD, ROBT ELWOOD, NASHVILLE
MANALAC SR, ABELARDO Z, MT JULIET
* MANLOVE JR, WM R, NASHVILLE
MANNING, DEBORAH A, NASHVILLE
MARNEY, SAMUEL ROWE, NASHVILLE
MARSHALL JR, WILLIS H, MADISON
MARTINEZ , ERLINDA A, NASHVILLE
MARTINEZ, ROGELIO R, NASHVILLE
MASON, THOS EMMETT, NASHVILLE
MASSIE, RALPH W, NASHVILLE
MAXSON, WAYNE S, NASHVILLE
MAXWELL, G PATRICK, NASHVILLE
* MAYER, JAMES A, NASHVILLE
* MAYES, BEN RICHARDSON, NASHVILLE
MAYES, CHAS EUGENE, NASHVILLE
MAYNARD, U JERRY, NASHVILLE
MCCALL, HERBERT TRAVIS, MADISON
MCCLELLAN, ROBERT E, NASHVILLE
MCCONNELL, CONN M, MADISON
* MCCRACKEN, ROBERT LAZEAR, NASHVILLE
MCDANIEL, WILLIAM R, NASHVILLE
MCFERRIN, JAMES R, NASHVILLE
MCGEHEE, JAMES BARTLEY, NASHVILLE
MCGINLEY, JAMES HENRY, NASHVILLE
MCGINNIS, CHARLES W, NASHVILLE
MCGRIFF JR, JAMES E, GALLATIN
MCINNIS, JOHN CAMERON, NASHVILLE
MCKAY III, CHARLES E, NASHVILLE
MCKEE, DAVID EARL, MADISON
MCKEE, EMBRY ARNOLD, NASHVILLE
MCLENDON, RICHARD ELLISON, NASHVILLE
MCLEOD, ALEXANDER C, NASHVILLE
MCMAHAN, JOHN WELLINGTON, NASHVILLE
MCMURRAY, M CHARLES, NASHVILLE
MCMURTRY, CECIL E, HENDERSONVILLE
MCNABB, PAUL CARTER, NASHVILLE
MCPHERSON, EWING WILLIAM, NASHVILLE
MCPHERSON, WARREN F, NASHVILLE
MCQUIRTER JR, WROTEN, NASHVILLE
MEACHAM, WM FELAND, NASHVILLE
MEADOR, CLIFTON K, NASHVILLE
MEADORS, MICHAEL H, NASHVILLE
* MEIROWSKY, ARNOLD MAX, NASHVILLE
MELKIN, STEPHEN PELLAR, NASHVILLE
MENDOZA, DANIEL, HENDERSONVILLE
MENZIE, JAMES W, NASHVILLE
MERRITT II, CULLEN R, NASHVILLE
METTS III, VERGIL L, MADISON
MEYER JR, ALVIN HENRY, DONELSON
MICHAEL, PAUL R, NASHVILLE
MILEK, MICHAEL A, NASHVILLE
MILLER JR, JAMES OLNEY, MADISON
MILLER, ANDREW HERRON, NASHVILLE
MILLER, JOE M, NASHVILLE
MILLER, JOHN M, NASHVILLE
* MILLER, LLOYD C, NASHVILLE

MILLER, MICHAEL E, NASHVILLE
MILLER, MICHAEL PETER, NASHVILLE
MILLER, THOMAS B, MADISON
MILLER-FROST, RUTH, NASHVILLE
* MILLIS, JAMES BROWN, SAUDI ARABIA
MINCH, F MICHAEL, NASHVILLE
* MINTON, LEE ROY, NASHVILLE
MIRANDA, FERNANDO T, OLD HICKORY
MITCHELL, CARL EDWARD, NASHVILLE
MITCHELL, DOUGLAS PARK, NASHVILLE
MITCHELL, EDWIN HARRIS, NASHVILLE
MOBLEY III, E PAUL, MADISON
MOGAN, THOS FRANCIS, HENDERSONVILLE
MOLIN, JOHN ALLAN, NASHVILLE
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MONTGOMERY, DEBORAH G, NASHVILLE
MONTGOMERY, MARCIA A, NASHVILLE
MONTOLRIS, GEORGIA O, NASHVILLE
MOORE, ANDREW M, NASHVILLE
MORGAN, DAVID H, NASHVILLE
MORDNEY, DAVID M, NASHVILLE
MORTON III, CHARLES E, NASHVILLE
MOULTON, PATRICK HOWARD, NASHVILLE
MOYERS, JAMES RICHARD, NASHVILLE
MULHERIN JR, JOS LOUIS, NASHVILLE
- MUNOZ, FRANK J, NASHVILLE
* MURRAY, HENRY DARWIN, OLD HICKORY
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NAJJAR, JENNIFER LEE, NASHVILLE
NASH, JAMES L, NASHVILLE
NEADERTHAL, ROBERT LEE, NASHVILLE
NEBLETT III, WALLACE W, NASHVILLE
- NEELY, KIMBERLY ANN, NASHVILLE
NEFF, BETTY K, NASHVILLE
NELSON, I ARMISTEAD, NASHVILLE
NEMEC, DEWEY G, NASHVILLE
NESBITT, TOM EDWARD, NASHVILLE
NETSKY, MARTIN GEO, NASHVILLE
NETTERVILLE JR, JOHN T, BRENTWOOD
NEWSOME III, H CLAY, NASHVILLE
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NOEL JR, PHILIP JORDAN, NASHVILLE
NOEL, OSCAR F, NASHVILLE
NORRIS, MARGARET SWANN, NASHVILLE
NORTH, K TIMOTHY, MADISON
NORTON, CHAS GLENN, NASHVILLE
O'BRIEN, KEVIN MICHAEL, NASHVILLE
O'DAY, DENIS MICHAEL, NASHVILLE
O'LEARY, JAMES P, NASHVILLE
OATES, JOHN ALEXANDER, NASHVILLE
- ODDERSON, IB R, NASHVILLE
OGLESBY, JOHN WILLIS, NASHVILLE
OLDHAM, RICHARD RANDOLPH, NASHVILLE
- OLIVER, DIANE E, NASHVILLE
OLLAPALLY, ELSIE P, MADISON
OLSON, BARBARA JEAN, NASHVILLE
ONI, ADEDAMOLA, NASHVILLE
ORCUTT, THOS WM, NASHVILLE
ORLAND, RICHARD A, NASHVILLE
ORTH, DAVID N, NASHVILLE
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OVERFIELD, RONALD EDWIN, NASHVILLE
OWEN, ROBT CARROLL, NASHVILLE
OWNBEY, RICHARD PHILLIP, NASHVILLE
P'POOL JR, DAVID BRUCE, NASHVILLE
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